AAHE’s Continuous Quality Improvement Project

TQM: Will it Work on Campus?

7 articles reprinted from the May/June 1993 issue of Change

AAHE
American Association for Higher Education
WHY THIS REPRINT

The May/June 1993 issue of Change has become one of the most popular and most widely read in recent memory. Because of the large demand and positive response to this issue, the decision to reprint was easy. The literature on continuous quality improvement, as it relates to higher education, is still relatively meager; we hope that these reprints (available in bulk) will help to carry the conversation on campuses a little deeper.

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It's fascinating to watch the arrival of Total Quality Management (TQM)—or Continuous Quality Improvement (CQI), as it is called by its health care practitioners—in higher education. A few campus pioneers began their TQM effort in the eighties; the big wave of interest kicked in during the 1991-92 academic year; by now, it's hard to find a campus without a knot of people trying to implement the thing.

On almost any campus, thin as the knowledge may yet be, people are already stoutly for Total Quality or deeply skeptical of it. What the quick-to-judge miss—what the early, triumphalist writing about TQM in higher education also misses—is that Total Quality is complicated, important, difficult to implement, and far from figured out. Contrary to the tool-driven, seven-step workshops that consultants are busily selling, we're years away from knowing what academic versions of TQM will appropriately look like.
TQM, as campuses are indeed discovering, is not some bite-sized management fad like MBO. Instead it’s a code word for a big tentful of ideas aimed at the transformation of the modern corporate enterprise. In the eyes of the quality movement, the late-20th century corporation is bureaucratic, oversized, sluggish, self-absorbed, unresponsive, and repressive of initiative and talent; worse, it is uncompetitive. To achieve its desired transformation, the Total Quality movement over time has gathered in loose union ideas from systems theory, humanistic and industrial psychology, management theory, human-resource and organizational development, statistical process control, plus lessons from earlier attempts at quality improvement like quality circles. All of these ideas, in many guises and combinations, aim to remake organizations so they become more focused, disciplined, quick-footed, humane, and competitive.

With this understanding of the quality movement, it’s important to stand back from the particularist versions of the “it” being vended today. The danger is that we’ll be put off by the fervor, the formulas, or the smell of fad and miss the fact that a very important set of ideas about the organizations we work in has made its way through the industrial, service, health care, and governmental sectors of society and is now at our doorstep. The issue, then, is less TQM itself than the appropriateness of the set of ideas behind it to problems we know we face.

What are those ideas? One could list dozens; here are six important ones, with reflections on their applicability in higher education.

The first idea is customer focus. In earlier days, quality was defined as what the craftsman or the professional said it was; in industry, as the absence of defects. The new dispensation is that quality is what the customer says it is. The corporate objective is to provide goods or services that meet or exceed customer requirements, indeed that may surprise and delight the customer.

A customer focus impels organizations to be specific about the parties they serve. Who are your customers? The ultimate users of the good or service you produce, TQM says. Those users are both external and internal to the organization. The external customers of a college, for example, would likely include funders and donors, employers, and graduate schools; internally, customers would include students (in their academic roles, “learners”), but also, for any employee of the college, “the people down the hall who receive my work.” Must you do everything the customer wants? No, good judgment applies as ever.

Writ large, the doctrine of customer focus is a call to everybody in the organization to get out of the cubbyholes they work in and talk with the real people they’re serving. The concept especially challenges managers and professionals—the “experts” who run knowledge-intensive enterprises—to be clearer about whom they work for and systematically to listen to those parties.

The focus on customers offers another advantage, that of demystifying quality. Over the decades, judgments about campus or departmental “quality” have often been settled by the presence or not of certain resources, or by citing the opinion of insiders and peers; or quality has been declared “ineffable” and therefore beyond discussion. The assessment movement broke through these closed-end ways of thinking with the insight that an institution’s quality was a function of its contributions to student learning—contributions that are knowable and trackable. In the same spirit, the quality movement enters its own, new way of judging quality: the degree to which customer needs or expectations are met. Customer needs are knowable and trackable; “good outcomes for named parties we serve” becomes an additional, useful measure for campus and unit performance.

The second idea is continuous improvement. This is a simple idea, clear enough in its stating, sprung from the intensely competitive world of automotive, computer, and similar industries, where any failure to push the boundaries of quality, each year out, can be fatal. Entire industries have come to learn that if you’re standing still, you’re dead; whatever quality level you’ve achieved today won’t be good enough tomorrow.

Simple as the concept seems, the embrace of “continuous improvement” as an organizational imperative has profound consequences: to reach ever higher performance levels every year out, an organization needs to think systematically about the constant improvement of all processes that deliver value to its customers...it needs management, production, personnel, information, supplier, and reward systems that are in gear and geared to the task—in a word, all (or most) of TQM.

Continuous improvement, as idea and as imperative, is probably the stranger for the academy among Total Quality’s tentful of ideas, especially when it comes to the daily tasks of undergraduate education. A community sense or ethic that teaching and learning need continuously to be improved—and all that would follow from that, notably assessment—is absent from our discourse. Quality assurance we do know, but continuous quality improvement...“Well, that would take money,” and “We’re doing the best we can.” The missing ethic is less personal than corporate: somehow, despite all the good will, talent, and effort of indi-
individual faculty, there's seldom a collective sense of obligation toward or aversion about the improvement of student learning. So it is that an organization full of learners doesn't add up to a learning organization.

This fact came home to me last summer reading Sheila Tobias's *Change* report on science programs that work (May/June, 1992). In most of the large universities she visited, the picture was one of business as usual in science classes, interrupted only every so often by some grand, externally funded innovation—which tended either not to work or be sustained. The programs that did work, on the other hand, were characterized by a "process model that focuses attention continuously on every aspect of the teaching-learning enterprise," where "faculty pay continuous attention to what we teach, whom we teach, and how we teach," and where "once a problem is identified, a solution is sought—locally, incrementally, quickly."

The discouraging circumstance about the Tobias finding is just how rare such an approach turns out to be. One recalls Derek Bok's remark in *Change* that—thousands of projects, task forces, foundation grants, and journal articles notwithstanding—the state of teaching and learning in American higher education seems no better than it was 20 years ago. When I look at college completion rates over those years, or at the standardized test scores of our graduates, or at campus assessment findings over time, I find little to refute Bok's observation. What’s missing, again, is less the knowledge or money than the felt need for improvement—an ethic and the aspiration that would impel a collegiate organization toward higher levels of student attainment year after year.

The third emphasis is *management by fact*. The notion of continuously improving the quality of an organization’s goods or services implies that “quality” has to be specified and monitored. If you’re serious about quality, corporate managers say, you have to be as specific as possible about what you mean by quality and systematically keep track of how you are doing. TQM wants everybody’s focus on the organization’s central missions; it deploys public, visible information systems to let each person and team know what’s important and how we’re doing.

More largely, the central idea here is to get managers and work teams to move beyond decision-making by personal impression, anecdote, or complaint; keep track, dig out the facts, find the systemic problem or root cause, the idea says, and spend your time on that. TQM's statistical armamentarium includes dozens of relatively simple ways of tracking organizational or unit performance. Most of these tools—indeed, the habit of looking for and preferring data—would be entirely new to the informal, loosely coupled, problem-chasing world of academic administration.

These “be clear, keep track, use data to improve” injunctions are close in spirit to what higher education has come to learn from assessment. Assessment, of course, has been an uphill battle these last eight years; even now it’s little more than an episodic veneer in most institutions. The reasons for this are several; not least among them is a general disinclination to specify and track the key processes of undergraduate education. But what is the point of the assessor’s “knowledge for improvement” if continuous improvement isn’t the aim?

A fourth idea is that of *benchmarking*. The word itself can be confusing—people think it implies a statistic or norm. In today’s corporation, benchmarking means the “systematic search for best practice.” Driven by the need to improve continu-ous, a corporation identifies its key work processes, large and small, then asks, What company in the world does this one the best? It searches out that “best practice,” studies it, adapts it, and tries to do as well or better. Xerox, for example, improved its own handling of 1-800 phone orders by studying the way L.L. Bean responds to callers; at IBM’s Baldridge-award facility in Rochester, Minnesota, some 360 processes have been benchmarked.

In undergraduate education, the same absence of ethic that constrains continuous improvement makes searching for “best practice” almost a nonexistent practice. One consequence is that even our best innovations don’t spread. Over the past years, well-conceived, cost-effective approaches have been developed for scores of academic processes: for student advise-ment, for the teaching of writing, for the deployment of technology, for the doing of assessment, and on and on; the observable fact is that most of these innovations have gone nowhere. There must be 500 "successful" FIPSE projects that have never been replicated.

It doesn’t take long on most campuses to figure out why: the first thing a visitor will be told is that “We’re unique.” If a committee can be persuaded to learn from another campus, the example better be from the tiny spectrum of institutions it aspires to be like—a likely dry well. In industry, this cobbled, localist attitude is derided with the phrase, “Not invented here.” What is remarkable also is the degree to which companies, even entire industries, collaborate with one another in benchmarking for mutual improvement...a phenomenon all too rare in the inward-looking, status-driven world of higher education.

A fifth, very important emphasis in the quality movement is *people*. An organization avid for improvement sees people as its greatest resource. It does everything possible to give every employee the preparation, tools, and initiative to contribute to corporate goals. This emphasis starts with an organizational vision capable of giving power to each person’s work, a vision carried forward in a hundred policies aimed at the empowerment of individuals and work teams. For employees, the watchwords become training, teamwork, responsibility-taking, and mutual accountability; for leaders, the call is to provide vision and strategy, to coach, mentor, and be a team player, and
to tend to what Peter Senge and others label “organizational learning.” In TQM, 85 percent of the problems that arise in the course of work are attributable to the organization’s systems, just 15 percent to the shortcomings of individual employees. The manager’s job, then, is to improve constantly the work systems of the organization, to drive out blaming and fear, to remove obstacles in the system that prevent persons or teams from doing their best work.

A lot of powerful ideas are packed into the preceding paragraph; many of them contradict prevailing norms on campuses where blaming and fear infect relationships, teamwork is rare, and managers know best. The good news, though, is that many of these “new” organizational teachings turn out to be ones the academic world is ready for. To the surprise and delight of many of its campus initiators, this “human side of TQM”—especially the idea of working in teams with real authority—has struck a positive chord, to the frequent happy improvement of work processes and morale.

The early success of a few teams, of course, does not a campus remake...teamwork is only a first step on a longer, difficult journey the quality movement would have us undertake. At a deeper level, the barriers are cultural, attitudinal, and political. What trust, for example, do collegiate organizations vest in the broad range of their employees? What value is placed on their development? In companies like Motorola, Corning, or GM’s Saturn Division, a remarkable 5 percent of the company’s expenditures are devoted to employee education, training, and development; Motorola, which has realized 15 percent or greater productivity gains for eight years running, thinks its return on investment for employee training is 30-1. Question: Why is it that in almost any university or college—organizations devoted to learning—the comparable expenditure will be a fraction of one percent?

The sixth insight has to do with organizational structures. Quality champions argue that, to assure the delivery of value in the marketplace, work has to be organized around the needs and preferences of customers, not those of the corporation or its employees.

In the bureaucratic world of old, the particulars of most work processes tended to be clustered within neatly tiered departments or disciplines (“silos”), each with its own turf and norms—manufacturing, sales, finance, R&D, purchasing, and so on. As the Cadillac Motor Car Company tells it in its Baldrige presentation, the consequence for the company (up until the mid-eighties) was “over the wall engineering”: car buffs in the design shop would draw up a new model, fins and all; they’d toss their drawings over the wall to engineers, who were supposed to figure out how to manufacture it; the engineers tossed their work over the wall to the factory floor, where workers were supposed to build it; upon which the car went to dealers, who were supposed to sell it; whence it was passed to the buyer, to whom they said “good luck.”

What, then, shall we make of the coming of TQM? There are powerful, relevant ideas here: wonderful stories of accomplishment have already been written in its name, as you’ll see on the following pages. Even so, the transformations TQM wants are so great that the best one can say is that this, too, will be uphill.

The pessimism about TQM’s arrival in higher education comes from a comparison with its adoption in industry. Motorola and Xerox remade themselves into “high-performing work organizations” because they absolutely had to—it was change now or die. Few institutions or people in higher education feel that’s a reality for us now ...there just isn’t that “heat at the backside” that brought transformation elsewhere. Even if we felt that urgency, I’m not sure that a headlong, externally driven push into this thing makes sense for us. Too much of value could be left behind.

Having said that, I return to the ideas that TQM has put in the air. One of those ideas is that organizations should be driven by the intrinsic motivation in all of us to do our best work. Might it be that a fine sense of our own possibilities—and of our obligations to students, knowledge, our publics, and to one another—could serve as impulse for a home-grown push for higher quality?

What vision might drive such a push? What is it we hope for from our work? Last winter in Change, Jane Tompkins listed what she wanted from her university work: a common enterprise; belonging; good feelings in the workplace; a community of hope; an integrated life. Here’s another answer, from Max DePree’s “Leadership is an Art”—a little book written by the CEO of a quality-oriented furniture company:

We would like to find the most effective, most productive, most rewarding way of working together. We would like to know that our work process uses all the appropriate and pertinent resources: human, physical, financial. We would like a work process and relationships that meet our personal needs for belonging, for contributing, for meaningful work, for the opportunity to make a commitment, for the opportunity to grow and be at least reasonably in control of our own destinies. Finally, we’d like someone to say “thank you.”
ARMONK, N.Y., Sept. 24, 1992 — IBM Corp. today announced cash and equipment awards to nine U.S. colleges and universities who will work with IBM in an effort to accelerate the teaching, research, and use of quality management principles. The schools were selected from more than 200 applicants in IBM’s Total Quality Management (TQM) University Competition.

The awards — $1 million in cash, or $3 million in IBM equipment, over five years — will help the institutions implement quality management principles in their curricula and operations and conduct research on quality. Award recipients will be offered partnerships with IBM facilities, and be expected there to share knowledge and experience with other academic institutions.

In making today’s announcement, IBM Chairman John F. Akers said: “I believe that working together, the academic and business communities can speed up the use of total quality management in education and industry. That will mean that graduates, particularly in business and engineering, will be ready to apply the principles of quality management from the first day they are on the job. We are pleased to begin this partnership with these outstanding schools.”
he IBM competition is just one of several high-visibility efforts that is bringing the practice of Total Quality Management (TQM)—or Continuous Quality Improvement (CQI), as many health-care and academic practitioners are beginning to call it—onto the college campus. Another industry effort, the TQM University Challenge, is a consortium of leading-edge companies that is providing training and technical expertise to a select group of universities. The American Association for Higher Education (AAHE) is playing a role, too; its new Academic Quality Consortium pulls together TQM’s academic “idea champions” to glean critical learnings about Total Quality’s applicability and implementation.

Predictably, a spate of meetings, conferences, and sessions with a heavy “quality” slant now crowd the scene. Some are hosted by TQM-committed institutions looking to share their experiences (while ever-so-gently tooting their own horns). There are associations hoping to respond to members’ needs—and boost conference attendance at a time when travel budgets are tighter than ever—hence, this title from a recent flier, “TQM and What It Means to Catalogue Librarians.” And, finally, there is the regrettable influx of consulting and conferencing outfits who know little about TQM or CQI or higher education but who do know about making a buck—and striking when the iron is hot.

Amid the skepticism and fervor that necessarily accompany any new idea, I had the opportunity in February to visit three campuses engaged in CQI beginnings—Georgia Institute of Technology, Pennsylvania State University, and the University of Maryland. With the exception that each of these institutions’ leaders is committed to implementing CQI in his institution’s operations and curriculum, and that each school was an IBM grant winner, there is nothing unique or special about the three; they are not necessarily the trend-setters and none would claim to have mastered the art and science of TQM implementation. Each, in fact, would tell you the same thing: “We are just beginning to understand how these principles work.”

My goal was modest: it was to scratch beneath the surface of the planning committees and training schedules that go with most CQI implementation efforts to see if anything truly interesting was happening. Here is what I found.
From the Hartsfield Atlanta International Airport, Georgia Tech is a 20-minute, straight shot on MARTA, Atlanta’s rapid rail system. Under the long shadows of the NationsBank building, the Peachtree Plaza Hotel, and the international headquarters of Coca-Cola, the midtown campus is an energized, slightly claustrophobic place with a mammoth football stadium, 23 residence halls, dozens of academic units, 1,500 faculty members, and nearly 13,000 students.

Georgia Tech is a very good university. It has the students. The average SAT scores of the entering freshman class (1226) and its high school grade point average (3.6) give the institution one of the best student bodies of all public universities in the country. It ranks high in the number (90) of National Merit Scholars among public institutions.

It has the resources. The Georgia Tech Research Institute employs over 600 full-time engineers and scientists with an annual research volume in the $100 million range. The market value of Tech’s endowment is pushing $250 million. The total institutional budget is $350 million. And, topping it all off, it now has the Olympics. The 1996 Summer Olympic Games will focus world attention on Atlanta. That focus will extend to Georgia Tech as the site of the Olympic Village and of two sports venues—swimming and diving, and boxing.

The president of such an institution should be pleased, very pleased. Then why would Pat Crecine, Georgia Tech’s president, say to me: “We need to bring about a cultural change here. We need to begin now. CQI is a great way to go about meeting that objective”? The answer lies in Tech’s vision of itself, in its knowledge of the changing environment in which it operates, and in a realistic self-assessment of its strengths and weaknesses. Strategic planners call this
“gap analysis”—and work on how to get from here to there.

Today, as a result of a comprehensive strategic planning process, Georgia Tech’s vision is to become “the premier technological university of the 21st century.” But in 1987 Pat Creecie discovered an institution whose priorities had shifted ever-so-gradually over a 20-year period. “Over time I came to several conclusions. Georgia Tech was doing extremely well in some areas. It had developed, almost from scratch, a strong research program which could become the foundation for a great graduate program,” Creecie says. “It also had a good, solid regional reputation. There was a tremendous flow of talent through Tech. Turn that talent pool on and let it run for 100 years and you’re going to have a strong alumni.”

His concern was with the undergraduate program. “We had neglected our undergraduate student population,” he says. “Our academic programs, with few exceptions, were moribund. It seemed to me that a university couldn’t be truly great without an excellent student body, challenging programs, and comprehensive services to help those students succeed.”

The ensuing strategic planning process, headed up by Tim Gilmour, Georgia Tech’s vice president for planning, revealed some stark realities: a lot of talent got flushed in the freshman year—a 20 percent attrition rate had taken hold—with more talent lost further up the line. According to Gilmour, “This place operated as if it were boot camp—survival of the fittest. People got out of Georgia Tech; they didn’t graduate. And mostly they got out with a lot of auger.”

The graduation rate was 65 percent. “I know many institutions would think that was wonderful, but given the quality of our student body, we should have been graduating at least 85 percent,” Creecie says. “There were just too many aspects of our curricular system that were inefficient.”

The impetus for a “cultural shift” emphasizing CQI principles developed with a single focus: rather than trying to filter them out, how do we help students be successful here? The strategy for implementing CQI as an operating philosophy, however, has since taken on a much broader look. According to Tech’s IBM proposal, a vision to become the premier technological university implies the development of processes that continually improve its ability to meet customers’ needs. To that end, Tech has developed “a strategic plan and organizational framework that are designed to bring about and maintain a commitment to TQM and to focus and coordinate TQM efforts throughout the institution’s units.”

Tech has now set up a Quality Council chaired by President Creecie and an Office for Continuous Improvement and Assessment. A new Continuous Improvement Curriculum Committee has been formed, chaired by John White, the dean of engineering and former deputy director of the National Science Foundation; its charter is to develop a "seamless" TQM curriculum that "touches every student" at Georgia Tech.

There is a complementing array of initiatives in curriculum development, continuing education, training, and a "customer-driven research program aimed at developing a ‘scientific’ understanding of what works in TQM, why it works, and what might work even better."

But what has captured the attention of many people at Tech has been the leadership of one office that decided to forego long studies, leave the debates about CQI language and strategy to others, and to buckle down for some much-needed results. President Creecie provides the background: “Most institutions of higher education are in for a big shock—especially those that are technologically oriented. In 1990 the percentage of 20-year-olds who were white males was 42 percent. In the year 2000 the figure may be 30 percent. It is clear that we must adapt,” he says. “This place has to be relatively more appealing to women and minorities, in order to respond to the talent that’s there. Minority kids are especially critical to the success of this country. We’re not going to compete worldwide unless we manage diversity better than anyone else.”

The team that leads the Office of Minority Education Development (OMED), had a corresponding set of numbers to worry about—a relatively low number of African-American and Hispanic graduates in science and engineering. So in 1991 and 1992 the team registered itself in a quality-management course taught by Jane Ammons, a Georgia Tech engineering professor who has worked with W. Edwards Deming, the legendary quality expert.

“What that did,” according to Cedric Stallworth, a member of the OMED team, “was to give us the means to communicate. You have to understand the principles, but applying them to the organization is the magic of the individual. It’s the translation that counts, taking the tools and applying them to what you do.”

One of the first things the OMED team did was to rewrite its mission. It drew insights from Deming’s notion of “constancy of purpose”—the idea that organizations (and units) function better with a philosophy and unifying goals—to produce a mission statement with a sharp-edged sense of purpose:

OMED is an academic service organization that seeks to assist Georgia Tech in its development of the complete student learner who is African-American, Hispanic, or Native American. This complete development is intended to ensure that when these students graduate or leave Georgia Tech, their choice set is optimal and they, as well as their families, will have had a positive and gratifying experience.

“Optimal choice set”: what does that mean? Stallworth and his team believe it means a 3.0 GPA: “In this world, corporations want a 3.0 minimum. Graduate schools want a 3.0. That is what the external customers say you have to have, that’s what a graduate needs to have some choices, so that is how we define success.” They reorganized to meet that mission. “The people in my office had always thought they worked for me. It took a while to convince them that they work for the students, instead of the university,” says Stallworth. “Tech supplies them with what they need so that they can supply the students with what they need.”

They went to a law-firm-like structure, with units organized around the identified needs of their client-students. Each division—investment services, data analysis, marketing services,
process control—developed its own mission statement, goals, and means of evaluation.

With the aid of IBM-loaned executives—Rick Seigler and Bob Hume—the OMED crew then began to explore another TQM dictum—management by fact. “The data said that there was a very strong correlation at Georgia Tech between first-quarter performance and graduation rates. So we asked ourselves the question: How do we make first-quarter performance better?”

Stallworth, an ex-Yellow Jacket football player, began thinking about an athletic analogy: “Most athletic teams have a pre-season. Why? In order to get used to game situations.” At Georgia Tech, however, the orientation program that ran the few days before classes began was focused on mechanics: dormitory policies, campus layout, and so on. “What we were running was a stadium preview—you come and look at the stadium, check out the weight room and locker rooms, and then go out and play a game. That’s fine, if everyone is ready to play. We decided that the minority kids weren’t. They needed an academic pre-season.”

The OMED team began to redefine its historic CHALLENGE Program. It started as a six-week “academic pre-season” in which students took calculus, chemistry, psychology, and introduction to computers. They lived in the dorms, attended classes, took tests, got grades. One of the courses, psychology, was “for credit,” which served to reduce students’ first-semester course load from 15 to 12 credits. Other pre-season activities were organized around the idea that the problem was not the kids’ abilities but their lack of effective strategies; the new program brought in a local banker to talk about managing money, a counselor to talk about relationships, and so on.

OMED then began thinking of strategy-building. “We decided that students needed a game plan, just like you have for a football game,” Stallworth says. “Our Master Game Plan (MGP) gives them a tool to budget their time, to map everything out. It also functions as a game film—you can play it back. Say a student fails a test and tells you, ‘I didn’t have time to study.’ We go to the Game Plan and see why.”

The results? CHALLENGE students’ first-quarter GPA jumped to 2.6, a significant gain over the 2.2 average for earlier cohorts of African-American students. Good, OMED said, but not good enough.

For 1992 the process was redesigned. Instead of one six-week pre-season with 40 students, OMED went to two four-week sessions with 40 students each (reaching 80 of the 191 African-American and Hispanic freshmen). It also took a longer look at in-college subprocesses. According to Stallworth, “Our initial hypothesis was that first-quarter performance will tell you if the person is going to stay around. But second-quarter performance, we think, tells you how well they will do if they stay around.

ONE OF THE FIRST THINGS THE OMED TEAM DID WAS TO REWRITE ITS MISSION.

“We are learning that you have to attack this thing—just like a football program—quarter by quarter. The programs that we put in place for the first quarter are not necessarily effective beyond that time period. For example, we now realize that in the first quarter there is very little external noise to detract from what OMED is saying. They are getting full-bore OMED.” He continued, “What happens is that fraternities and sororities come along, and other commitments start happening, and they can’t hear us as well.”

To get another voice in the picture, OMED enlists the help of parents. At the end of each quarter it sends parents a “management letter.” The analogy here is not football; it’s Dean Witter or Prudential. “We talk about how the student did, the class rank sheet. We send them home investment information,” says Stallworth. And the second-year results? CHALLENGE students surged to a 3.3 average; 13 freshmen pulled a perfect 4.0.

Good enough? Not to the OMED team. As avid convert-practitioners of Continuous Quality improvement they’re back at it this year—gathering more data, scrutinizing it, looking for more ways to help their students succeed.

Before I left the Tech campus I needed to confirm something. It has always been my contention that the one true test of a mission or vision statement is to ask people at various levels of an organization, “What is special about this place?” If you hear essentially the same language, the same ideas from different people, you know you’ve got a bone-deep, driving purpose. So I decided to corner some OMED students. “Tell me about CHALLENGE,” I asked.

Chaka Douglas, a civil engineering major, told me, “The classes in CHALLENGE were harder. I am getting an A in calculus now; during CHALLENGE I had a D. It was like spring football. I was discouraged but I learned what I needed to do. I needed to get in shape.”

Koren Wah, another freshman, gave me the straight scoop about MGP: “Maybe the biggest help to me is MGP—Master Game Plan. They went over how to budget your time: how much time in class, how much time studying, how much free time.” He added, “So you have a test on Friday and it’s Wednesday night. You have three hours scheduled to study and review notes—and your girl calls saying blah, blah, blah, can we do this? And you go, ‘Not in the MGP, honey, it’s not in the game plan.’”

And finally there was Chris Lee, an electrical engineering major who convinced me that the message was getting through. He said, “They are always here for us. There really are no excuses for failure. If I am African-American, I am expected to get a 3.0 to even hold my head up around here.” From the president of the university, to an office team, to three freshmen—the same language, the same ideas.
A Continuous Quality Improvement Center was also organized, with Louise Sandmeyer as director, charged among other tasks to “develop a training model and to assist sponsors and teams in their process-improvement efforts.”

The improvement efforts, according to Sandmeyer, proceed in a fairly straightforward fashion. Ideally, a project begins when a sponsoring administrator defines a process to be studied. He or she appoints a team leader and contacts the CQI Center for assistance in identifying a facilitator; the sponsor and team leader together select members of the team. The sponsor participates in identifying customers or clients and in the process for defining the function’s vision. The team leader handles communication between the sponsor and the team, oversees the logistics such as meeting schedules, and acts with the facilitator to implement the team’s use of the problem-solving model. The facilitator, who is from another area of the university, teaches the team how to use the various CQI tools and assists team members in communicating with each other and in decision making.

“Usually, the entire team attends core training sessions,” Sandmeyer says. “As data are collected, team members review the information and brainstorm ways to improve the process.”

At the conclusion of a project, the team leader and facilitator write a report that summarizes the process studied, the data collected, and the recommendations for improvement; it goes to the sponsor and the CQI Center. The sponsor reports back to the team and center on implementation of the proposed solutions. Over the last two years, more than 60 such teams in education and business have done their work, generating real improvements. In General Stores—the campus distributor for equipment and supplies—a team has reduced inventories by over 50 percent. As a result, warehousing needs were cut and a planned 65,000-sq.-ft. new General Stores building has been scaled back to 30,000 sq. ft. Also, by eliminating the complexity of its order-

WE’VE BEEN PRODUCTION-ORIENTED BY VIRTUE OF OUR SAYING, “THIS IS A GOOD COURSE BECAUSE WE KNOW IT IS A GOOD COURSE.”

The “Integrated Model” that evolved from the IBM proposal-writing process—and specifically from the “What are we doing here?” meeting—poses that quality is a function of the total interface among suppliers, input, processes, output, and customers. As it declared in its proposal, “Within this new, integrated framework, Penn State’s educational and supporting administrative processes develop educated students and produce new knowledge, thereby providing the added value between the suppliers of our students and the employers of our graduates.”

The Integrated Model is a visual archetype for a series of initiatives and new ways of thinking about quality on the Penn State campus. For example, on the input/supplier side, a Center for Total Quality Schools directed by William Hartman has been established in the College of Education. The mission of the center is to assist schools in implementing the practices of total quality in their operations. The center has developed a range of training sessions and workshops, highlighted by its Leadership Training Program, an intensive year-long program for districts just starting their involvement with quality management. School districts send a team of four members—superintendent, association president, building principal, and a classroom teacher—often sponsored by one or more local businesses.

“This is what’s unique about the center,” notes Hartman. “We’re asking businesses to become involved in the change process. In every community we’ve visited, businesses have been supportive and have participated fully. The center enables them to participate in the process in a structured, positive way.” The center is also tackling the problem of rework mentioned earlier. Working with K-12 school systems and university faculty members, it is immersed in an effort to enumerate competencies needed by high school graduates to succeed in the business and engineering colleges.

In another initiative, the Smeal College of Business Administration has been working in partnership with IBM to develop an expert system for undergraduate advising using an IBM AS 400 computer. J. D. Hammond, the Smeal College dean, has responded to the broadened view of quality that the Integrated Model presents to extend the expert advising system to K-12. Through an interactive network, it is anticipated that high school administrators, guidance counselors, and students will be able to query the system to plan high school coursework appropriate for intended college majors. Hammond regards this K-12 effort as “one of the most stimulating, creative efforts I have been involved in for a long time.”

On the output/customer side, there is a fresh perspective, too. Industrial Engineering head Al Soyster comments: “Take the curriculum. We’ve been production-oriented by virtue of our saying, ‘This is a good course because we know it is a good course.’ For the 25 years that I have been a faculty member, we’ve always looked at it from the supply side—faculty members sitting around the table deciding what’s best. It’s very infrequent that we get recruit-
Helen worked in the information booth at the front gate of the college four days a week—Thursday through Sunday. She and her husband were both retired and lived across the street from the small school, halfway between New York and Boston on the Rhode Island coast.

Helen didn’t need to work. It’s just that she enjoyed meeting people and the information booth was great for that. She also enjoyed keeping track of things—organizing, counting, making lists. The information booth didn’t seem so great for that. She had just been told to answer questions, give directions, and issue parking permits.

One day she decided to have some fun. She got an old notebook out and drew some lines—rows and columns. Every time someone wanted a permit or asked a question she made a check. Before long, Helen—sitting in her information booth at the front gate—could tell you a lot about the school. What was the most difficult building to find? Math-Science, definitely. What was the most commonly asked question? A two-part answer: during the week it was, “Do I need a parking permit?” On the weekends it was, “Is there a campus tour that we could go on?”

Harry, as the new vice president for enrollment management, had been on the job for six months. Previously, he had been director of admissions at another college. The new position and the title reflected a sign of the times: competition for qualified college applicants was intense. And it wasn’t simply a matter of pride or prestige. It was economic survival.

Without a strong first-year class, tuition income would drop, forcing the small college to dip into its reserves.

So here it was, mid-Sunday afternoon and Harry and his staff were in a New Jersey motel putting the final touches on their week-long blitz of high schools and college fairs in New Jersey and eastern Pennsylvania.

Harry reflected on one of his new initiatives. He was very concerned about the pool of applications: it had been shrinking. He thought his “new and improved” campus tour should help. The beauty of the campus, condition of the classrooms, the modern dormitories and state-of-the-art computer labs were major selling points.

He had recruited the most enthusiastic students to be tour guides and had personally scripted the tour, drilling the guides on important facts, most-asked questions, and points of interest.

Then he had set up the schedule—every morning at 10 and afternoon at 2, Monday through Friday.

Sue would be a senior this coming year. She was looking forward to her final year in high school and then going on to college. She wanted to attend a small school, not too far from her home in New York—like the one only a few miles from her parents’ summer house on the Rhode Island shore.

In fact, this weekend they had decided to stop at the school on their way back to New York. Pulling into the college’s entrance, Sue’s mom spotted the information booth. The car came to a halt next to it and Sue popped out of the back seat. A kindly, older woman greeted her with a smile and said, “Hello, how can I help you?”

Sue replied, “Is there a campus tour we could go on?”

“No, I’m so sorry,” said the woman. “Campus tours are conducted at 10 a.m. and 2 p.m. Monday through Friday.”

As Sue and her parents drove back to New York, they talked about the college in Connecticut they had visited last weekend.

As Sue and her parents drove back to New York, Harry’s motel meeting was in full swing.

As Sue and her parents drove back to New York, Helen made another check.

• Who was trying to do a good job?
• How are Helen’s and Harry’s jobs connected?
• Do you think they see any connection? Why or why not?
• Whose jobs are connected at your college or university?
• How can data from one area improve service in another?

I am sitting in the first row of a Management Information Systems class being taught by Maryam Alavi, associate professor of business. On the desk, just to my right, is a terminal named Debussy. Looking around the “teaching theatre,” I notice the other terminals have musical monikers, too—Chopin, Haydn, Brahms. Debussy blinks a set of instructions at me. Professor Alavi is working through the mechanics of a case study in which teams of students, scattered throughout the classroom, will generate collaborative responses.

A software program, VisionQuest, gives the students a set of tools aimed at supporting the group process: brainstorming, comment cards, compactor, point allocation, ranking, rating, scoring, subgroups selection, and voting. It’s an electronic team meeting with the added benefit that Alavi, with her own terminal, can eavesdrop on each team’s work, facilitating their progress through her comments and suggestions as they work toward a solution.

Teamwork, a core CQI principle and requisite business-world competency, is alive and well in Room 3140, Engineering Classroom Building on the University of Maryland’s College Park campus. Earlier in the day, as I sat in Professor Alavi’s B-school office, she talked about her passions—technology, Total Quality, and teaching: “Information technology can be useful in reengineering the teaching process, so that we embody what I consider to be the three major principles of TQ: 1) satisfying the customer, 2) using measurement and feedback for improvement, and 3) supporting teamwork. The question in my mind is, ‘How can I create a technology infrastructure that allows me to use the principles of TQ in the process of teaching and learning?’”

The running joke has been that the overhead projector stands as the most important technological advance in teaching yet. And it remains true that ever so many classes are still taught via the “stand and deliver” method—the professor stands in front of class and delivers a lecture. The problem, however, is not the technology. As Alavi suggests, “We are really constrained by our lack of creativity and incentives to change. One problem has been that the people who are in education and who research teaching and learning are not very technology-focused; those who are technology-literate, on the other hand, often know little about the learning process.”

With technology, students can access databases and encyclopedias; they can use simulations and models that show things a lot better than most teachers can explain them. What, then, becomes the essence of good teaching? According to Alavi, “As a faculty member I add value not by giving more information, because that can be provided more efficiently and in a much richer way by using technology. My role shifts to facilitating problem-solving, enhancing creativity, and to helping students change information into knowledge.”

While technology obviously can change the nature of the teacher-student role, how does it relate to customer (in this case, the student) satisfaction? “One of my goals is to create an environment that is not just user-friendly but user-seductive, an environment that allows the instructor and students to really get excited about their work,” says Alavi. Terms like “involvement” and “active learning” come to life in her classroom. “Time goes by so quickly in these classes. It comes to 10 o’clock and they don’t leave. The level of engagement is tremendous. It draws you in.”

And how does the technology relate to measurement and feedback? Several tools are available. One that Professor Alavi uses is a feedback meter. When this piece of software is activated there is a new display in the upper corner of students’ monitors. The small green block is labeled “Got It”; the red block is labeled “Don’t Get It.”

Every professor, myself included, asks students the mostly rhetorical question “Okay?” at some point during a lecture, usually at an important juncture or after a difficult explanation. But students tend not to want to embarrass themselves in front of their classmates or appear stupid before their teacher. In response to the question, “Okay?” they just sit there; rarely does anyone break the code of silence by saying, “No. It’s not okay. I don’t understand.” But in Alavi’s class, anonymity allows everyone to respond, providing her with real-time feedback that shows up on her monitor in the form of a red-green bar chart.

The result is real empowerment and the involvement of the student in a dynamic learning environment. Instead of waiting to see if the student “got it” by asking a question weeks later on a mid-term quiz, the effect is to convert to a “Not Yet” system. If a portion of the class signifies “Don’t Get It,” Alavi right away tries another approach or offers a different illustration.

Another feedback tool enables her students to respond to the end-of-class question, “Please describe the three major points from this class.” Part of the power in this tool is that students’ terminals display all the responses, allowing each student to compare his or her ideas with classmates.

While I found a treasure trove of ideas
and excitement in Maryam Alavi’s classroom, a much broader CQI agenda is being pursued on the College Park campus. President William Kirwin has set the pace by saying: “I am convinced that universities must fundamentally alter their educational strategy and institutional infrastructure in order to meet the challenges of the global marketplace in the 21st century.” When I spoke with Kirwin it was evident that his focus was on a cultural transformation: “We are asking senior members of this institution to begin to think and act differently from the way they have in the past.”

One thing that has changed is the president’s cabinet meeting. It has been expanded by one-and-a-half hours each week to accommodate quality-specific discussions. “Measures of accountability” are in place for each of the following areas:

- Teaching and education;
- Research, scholarship, and the performing arts;
- Diversity;
- Service excellence to internal constituents;
- Service excellence to external constituents;
- Community-building among internal constituents;
- Community-building among external constituents.

Maryland has put less emphasis on infrastructure than other institutions implementing CQI; it does not have, for example, a separate Council or “Quality Office.” Nonetheless, project teams are being fielded and operational improvements are already visible. The University Health Center is a case in point. It redesigned its critical processes in response to its own desire to improve services. By revamping its telephone procedures, triage system, and medical excuse policy, it has realized significant improvements in the quality of care and reduction in waiting time. Sacarred Boddison, the team leader, suggested there was an important side benefit as well: “The exciting part of it was the teamwork, the process that we went through to institute the changes. The people who were on the team were people who have never felt as though they were part of the decision-making process. The energy, interest, and bonding were fabulous.”

Besides visionary leadership and unit initiative, College Park has one more thing in its favor, the Maryland Center for Quality and Productivity, which has been a nationally recognized center for training, technical assistance, and applied research on the topic since 1977. The center has assisted more than 200 organizations; over 10,000 managers have received center training in quality and productivity-improvement. It co-sponsors, along with the American Society for Quality Control, an annual conference and the Maryland Center Quality Awards.

The center plays an important role on the Maryland campus, that of a dynamic boundary-spanning unit, helping units to make inter-organizational connections and increase their ability to integrate knowledge. Its stated purpose is to “stimulate individual and organizational changes that contribute to organizational success and the creation and retention of satisfying jobs in Maryland and the region.”

Tom Tuttle, the center director, has become a visible spokesperson for CQI, not just to the government and industrial communities that his unit serves, but to the institution within which he works. I asked him to relate his center’s “satisfying jobs” perspective to university life. His comments ring true: “A faculty member here probably feels as out-of-control regarding his or her process as a production worker at Bethlehem Steel. I think they feel like victims. They can control what goes on in the classroom but in terms of the institution, I don’t believe they feel as though they can influence much at all.” He continued, “We hire people to teach a class, show them their office, and give them a book. They are not masters of their own processes.”

People with perspective, team members excited about change, a president pushing on measures of accountability, that’s the CQI beginning in College Park.

And the professor in the classroom? I recall a brief discussion with Maryam Alavi as she escorted me to my next appointment. She said, “If you’re a natural teacher, born with that skill, that’s great. But recognizing the top five teachers on a campus of this size doesn’t change anything. It doesn’t help the majority of people to experiment, take risks, and become better.”

It’s true that we pay attention to the very good and the very bad when it comes to teaching effectiveness. To the “very good” we give certificates and cash bonuses; the “very bad” we send to faculty-development workshops. The professors in the middle of the distribution, the 90 percent, are “good” but have no framework or incentives for continuous improvement.

I don’t know if Maryam Alavi has won any teaching awards, but I do know that she is good. Anyone who thinks of students as her customers, believes in feedback and teamwork, and uses terms like “user-seductive” and “level of engagement” can probably show us a lot about continuous improvement in the classroom.

Why Didn’t Somebody Tell Me?

There are problems. Yes, individual institutions are pushing forward with improvement projects; CQI knowledge development has increased dramatically; resources are being made available; experience is teaching colleges about change strategies; confidence is up. Still, there are problems.

I continue to be troubled by the disconnection between institutional goals and individual goals. There is an unwillingness to confront “head on” the norms and reward systems that dissuade collaborative work and that cause most measurement efforts to be viewed not as a means for improvement but as a way to rank and punish. None of the training or vision-setting will amount to anything unless a college or university can honestly answer the question that its people are thinking: What’s in this for me? Real change simply will not occur on an institutional level until it is in the best interest of individuals to adopt new ways of thinking about their work.

There is also the near-universal problem of confusing activities with results. The tendency is to appoint high-level councils, issue vision statements, and roll out training sessions, so that Prestol, we have a CQI “program”—a word that I heard far too often. The real “driver” behind a quality initia-
tive should be a very specific problem or question—What exactly are we trying to achieve? What, specifically, would we have to do if we took as our goal the return of end-of-semester student evaluations to professors within 48 hours? Or, how would we need to reorganize ourselves to reduce by 75 percent the number of errors in our billing system? Quality-management principles are the means to an end. Determine the end, nail down a mind-stretching goal, then the tools and techniques make sense.

And finally, there is the very real conundrum on campuses today, a phenomenon almost unique to higher education—a lack of urgency about all this. Laura Raiman, an assistant professor of engineering who sits on Penn State’s quality council, said it best: “Few professors perceive this as a real crisis. Even though we have a futures committee and are trying to figure out what to do with less money, I think my colleagues still perceive that there will always be students coming through. This [CQI] isn’t really an issue.” Can it be that one of our gifts from society—an autonomy that insulates us from the vagaries of politics—will be the cause of our not “getting it” in time?

George Dieter, the dean of engineering at Maryland and a knowledgeable “quality” practitioner, made a curious remark—almost a side comment—at lunch the day I visited his campus. He said, “Why didn’t somebody tell me this 30 years ago?” It was an ironic comment, born out of frustration, but a comment that also breeds hope and inspiration. Maybe there really is a better way. If that is true, then perhaps the 1990s can be higher education’s decade for restructuring. Perhaps in a few short years, no one will need to make a George Dieter-type comment. Because the “somebodies” are pointing us toward a “better way” now. And their names are Pat Creccine, Tim Gilmour, Cedric Stallworth, John Brighton, William Hartman, Louise Sandmeyer, Maryam Alavi, Tom Tuttle, and William Kirwin.
The growing number of articles and books published on TQM in higher education has mostly consisted of glowing accounts of its adoption and early success in model institutions, plus "how-to" stories about TQM techniques. These reports are relatively uncritical and do not focus on a broad cross-section of institutions; they are the work of TQM champions (to use quality jargon). There have been few accounts of failures or of the range of difficulties institutions encounter in implementing TQM. My inquiries attempt to be objective and focus on a range of more typical examples across a single geographical area. This article summarizes findings about the initial use of TQM by 10 colleges and universities.

Background
Several major institutions in the Boston area, where higher education is one of the most significant industries and employers, have turned to TQM. In fact, in this area there are few institutions not exploring or experimenting with TQM to some degree. By early fall of 1992 nine such private institutions had become affiliated with the Center for Quality Management (CQM) in Cambridge. A group of major private-sector firms formed the center two years ago to help them adapt TQM to their businesses to increase their competitiveness and success. The center created "university affiliate" status last year to involve institutions of higher learning. I visited these nine affiliated institutions, plus one major public university in the area, to interview the key players on each campus and to ascertain the extent to which TQM has taken hold in higher education.

What follows is my interpretation of the preliminary data gathered from my initial interviews. The schools visited are: Babson College, Bentley College, Boston College, Boston University, Lesley College, Massachusetts Institute of Technology, Tufts University, University of Massachusetts at Boston, Wentworth Institute of Technology, and Worcester Polytechnic Institute.

TQM Initiation
Seven of the 10 schools say they first became interested in TQM in the 1990-91 academic year; the remaining three date TQM interest to a year later. In most instances there were two parties' interests that led to the promotion of TQM at a particular institution, that of a strategically placed administrator, and that of the institution's president.

The administrator who became a campus advocate for TQM was first exposed to TQM either through professional associates elsewhere or through experience with the use of TQM in business or industry. Often there were two or three such advocates on each campus. In each case the administrator saw TQM as an important means to address particular problems. Institutional administrators who were TQM advocates came from two common, and similar, backgrounds. The first and largest group were career college managers in the institutions' business affairs or administrative units. The second group came from the ranks of business-school faculty. All these advocates were comfortable with the private, for-profit sector and generally had some exposure through it to the use of TQM. Each administrator tended to be a confident self-starter who saw himself or herself as an agent for campus change. In most cases he or she had worked previously for other non-profit institutions or in the private sector; that is, had not spent most of his or her career at the current college.

The role of the college or university president was a second major factor...
THE

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In three other extremely diverse institutions, the CEO's role was described as "very supportive." Here the president was not the key initiator, but he or she clearly supported the efforts, participated in training, and made his or her support visible. In the remaining four schools the president has not been involved in any way in TQM efforts to date. None of these four, I noted, is approaching TQM on any sort of comprehensive basis, though particular internal units are committed to TQM and are proceeding with their own implementation.

My lesson from this may be: the head of a particular unit is necessary for adoption and implementation of TQM within that unit; the president must be a key leader or supporter for TQM to be adopted throughout the entire institution.

Unit Adoption and Implementation

In eight of the ten institutions I visited, one or more administrative units are now involved in implementing some form of TQM, most commonly in the business and finance division. Other units often involved in TQM are the computer center/computer information systems division and the human resources unit—offices that clearly serve internal customers, are most akin to the private sector, and that are comfortable with corporate jargon and analogies. They are excited about TQM and feel they can sink their teeth into problems where TQM techniques can be helpful.

At every institution I also inquired about TQM on the academic side. In most instances there were examples to cite. Practically all of these involved just two academic fields, business administration/management and engineering. I came across no examples of liberal arts faculty involved in implementing TQM. The school of management was the primary unit adopting TQM in the two universities not implementing quality on the administrative side. My inquiries about opposition or resistance to TQM usually centered on academic administrators and faculty.

Observations

Though seven of the ten institutions began to study and employ TQM up to two years ago, all advocates felt their
schools were “just beginning.” Those supporting TQM consider it a long process that may take perhaps five to ten years to impact the culture of the organization and its ways of doing things. I was frankly struck by how tenuous a hold TQM really has on these institutions.

Only one college has an Office of Quality with staffing and a budget. In this institution the president is the firmest advocate and has appointed two co-directors (one full-time and one part-time) to advance TQM throughout the campus and report to him regularly. In just three schools (including the one college with the full-time office) are there high-level Quality Steering Committees; one of these relates only to the administrative side of the campus. Six of the ten institutions studied have conducted introductory training on TQM for most higher-level administrators. In four of the institutions, only one or two units are pursuing TQM and there is no claim to wider campus participation or commitment (Chart 1).

In my judgment, TQM right now has a firm hold on only one of these institutions. In others, one or two units are strongly committed to pursuing quality and employing its techniques, but their approach is not campuswide by any stretch of the imagination. In most of the six colleges and universities that sponsored high-level training for all senior administrators, the initial enthusiasm has not been followed up. A common refrain was that the president, though “very supportive,” was now enmeshed in one or more crises that were diverting leadership and top-level direction from the movement toward TQM. This, of course, raises questions about the perceived efficacy and value of TQM itself, when leaders see no connection between it and the real problems their institutions face.

I was able to compile a list of some 24 improvement projects under way in the 10 institutions. While the list is impressive at some level, the actual results of employing TQM are rather few so far. Many of the projects are primarily gathering data—just step one in Deming’s “plan, do, check, act” cycle. In fact, most campuses began with relatively solvable problems so that TQM could show early successes. A few minor systems have been analyzed and have definitely improved, but major problems have not yet been solved.

One interpretation might be that TQM is off to a successful start and will succeed in impacting major collegiate systems and ways of thinking if given sufficient time. Another interpretation would be that the results so far do not match up to the hype, hopes, and initial investment in time and money. My conclusion is that it is too early to make a serious assessment.

As an interviewer I was struck by the enthusiasm and overall confidence of the TQM advocates. There is an aura of “true believer” about these champions. When asked about TQM elsewhere on campus, one committed dean actually told me there are “pockets of believers” [emphasis added] in other divisions. This level of faith is capturing a growing number of converts (to pursue the believer analogy); it just may in the end make a difference for the success of the quality movement on campuses.

The degree of skepticism and opposition from the core academic units is a primary reason to question the future of TQM in higher education. The pronounced reluctance of academic divisions (except business schools) to adopt TQM is alarming and may represent a serious disjunction between market forces and the academic enterprise and indicate that faculty are not currently interested in satisfying their students and other customers.

At this point, based on my study of these 10 institutions, my conclusion is that the success of TQM is related to the level of commitment by the college president and senior administrators. If TQM is to move beyond the fad stage and take firm hold, I believe two conditions are necessary: college presidents must perceive TQM as a means to solve major problems facing their institutions; and senior academic affairs administrators and faculty must believe TQM is related to their concerns and interests. It may be that the schools that adopt TQM will be the survivors that prosper in the future. TQM is clearly about change, as are the forces that now buffet American higher education.
What happens when one of the largest, most influential community colleges in the nation adopts TQM? That’s the case at the Maricopa County Community College District consisting of 10 colleges serving 180,000 students a year across the 10,000 square miles of greater Phoenix – and what I set out to see.

Maricopa is the second largest multi-college system in the country, exceeded only by the Los Angeles system; it ranks among the nation’s leading colleges in the use of computers and telecommunications. In 1992 it was selected by U.S. News & World Report as one of the best community college districts in the nation; Paul Elsner, its long-time chancellor, is widely regarded as one of the most effective college leaders in the nation. Given Maricopa’s size, standing, and leadership, the fact of its systemwide commitment to TQM made a lot of us in higher education sit up and take notice.

This new initiative is not the result of Maricopa having surplus revenues to throw at a fancy new project. Quite the contrary, the district has had to reduce its operating budget this year, with fiscal constraints and budget-cutting expected to continue for at least two more years.

But vision is not in short supply at Maricopa. Indeed, the notion of quality improvement has been present in several enterprises of longer standing. Its Think Tank, for example, is dedicated to coalescing any and all resources to help ensure that youth remain in the education system and make the most of educational opportunities before them. The Think Tank’s new agenda is systemic change, and it knows TQM in the schools is about to become a big issue. More recently Maricopa began working with the Pew Charitable Trusts to develop an urban compact that would tie it to the schools and social-welfare agencies in ways that would make “the system” work for each child.

What, then, led Maricopa to decide that its future lies in continuous quality improvement (CQI)? How will it accomplish this goal, one of no small proportions?

The Beginning

The quality initiative began, more or less, as a pilot project at one of the district’s community colleges, Rio Salado. There, two years ago, president Linda Thor initiated TQM training for employees. A steering group and quality teams soon formed to employ CQI tools in several of the college’s processes. Rio Salado moved along steadily with its TQM initiative. By April of this year all full-time faculty and staff and some part-time employees had gone through 40 hours of training in TQM’s basic concepts and tools, and more than a dozen quality-improvement teams were at work improving various college processes. Dr. Thor reports one very telling outcome: a recent survey of Rio’s full-time employees indicated that a full 94 percent say they clearly understand their roles in accomplishing the college mission.

Watching the first successes at Rio Salado, a year ago February Chancellor Elsner formed a Commission on Quantum Quality, charged both with investigating TQM programs in higher education and in government and industry, and with recommending a program for Maricopa that would focus on the central vision of the district—effective teaching and learning.

The commission’s report, published last August, contains seven recommendations:

1) The Quantum Quality Initiative should begin immediately throughout the colleges and district offices that constitute the system.
2) The chancellor and a steering team should lead the initiative with actions including development of vision statements and implementation strategies with timetables.
3) Communication concerning Quantum Quality should be immediate, pervasive, and universal.
4) Quantum Quality training and education for all employees should begin.
5) Quantum Quality should be integrated into Maricopa classrooms.
6) The district should establish partnerships to ensure external support and involvement.
7) Mechanisms should be developed to monitor, analyze, and evaluate the Quantum Quality Initiative.

Quantum Quality is now fully under way at Maricopa. At the district’s Support Services Center, William Waechter holds the title Vice Chancellor for
Quality and Employee Development, and the Quantum Quality Executive Council, which includes the chancellor and vice chancellors, presidents, and representatives of the faculty, professional staff, and the board, has, among other things, developed a new vision statement for the Maricopa colleges. A sense of the role Maricopa is preparing itself for is captured in its opening lines: "MCCCD will be the international model for community college education and in that role will be esteemed and sustained by Arizona. This institution will focus on educational excellence for the student through a superbly prepared faculty and staff, 21st century technology, and a striking level of innovation."

Implementing Quantum Quality

Training districtwide has begun; the chancellor, vice chancellors, the college presidents, quality coordinators, and faculty leaders have all received 40 hours of training and are now certified as "coaches." All 10 colleges have selected quality coordinators—their regular jobs range from secretary to dean—and they meet regularly with Donna Schober, executive assistant to the chancellor, to plan, share, and ensure the momentum of Quantum Quality. The colleges are now forming quality coordinating teams and are well underway with training for faculty and staff.

At Rio Salado, already two years into the quality movement, the next round of training—16 hours on Employee Empowerment/Customer Satisfaction—is beginning. An exciting new development is its Quality Academy, which provides TQM training of all kinds for academic institutions, business and industry, and other organizations. Formed less than a year ago, it has already begun to "take off" with an impressive calendar of training commitments and inquiries from across the country and Canada.

Training is a key element in TQM implementation, a point readily acknowledged by Donna Schober: "Developing our training agenda has been very challenging. We are planning different types of training: basic awareness training, the 40-hour training (which is offered by Rio Salado’s Quality Academy and is linked to a campus project), and en-

Maricopa, the nation’s second largest multi-college system, began its quality initiative as a pilot project at its Rio Salado Community College campus, and based on the positive results, Quantum Quality is now fully under way districtwide.
The Family of Maricopa Community Colleges

Maricopa may not be the first community college to adopt TQM, but it claims there is a "Maricopa Difference" in that it has focused its quality improvements on the core function of effective teaching and learning.

Quantum Quality is really about people; it allows and encourages individuals to be at their very best. TQM is the 'people strategy' for the nineties and beyond."

The Maricopa Difference

Maricopa is not the first community college to adopt TQM; indeed, at least two—Fox Valley and Delaware County—have been at it since 1985-86. Coming a bit later to the scene, however, Maricopa does so with its own imprint; Quantum Quality is characterized by several differences from the mainstream of TQM college initiatives.

To begin with, there is the name itself. The word Quantum implies a special meaning at Maricopa. As Elsner describes it, "MCC would not pursue quality in the same way—sure, we are interested in continuous improvement, data analysis, empowering employees, all of which will undergird the major transformations we must face. But the real transformations must push the paradigms we know to the paradigms we don’t yet grasp or understand. This is the Quantum aspect of TQM, the unknown, untested, the 'un-obvious' paths to change."

The "Maricopa Difference" extends beyond its name and philosophical intent. For one, its training emphasizes a "cross-functional, vertically integrated" format in which training groups include faculty and staff from different levels of responsibility and different divisions of the institutions. Most other colleges train by level and function, with faculty all in one group, administrators in another, support staff in a third.

Then there is the matter of the processes colleges choose as the focus for quality improvement. At most colleges and universities TQM's successes are reported, at least initially, in terms of turnaround-time saved in travel reimbursements or in efficiencies in the delivery of mail. In contrast, Maricopa's efforts are directed toward effective teaching and learning and improvements in that core function. According to Alfredo de los Santos, vice chancellor of academic and student affairs, districtwide groups are already conducting occupational course-by-course analyses to ensure that students are
learning the competencies most required by potential employers. "The entire focus is shifting to outcomes, to institutional effectiveness," according to de los Santos; "TQM is an integral part of that."

Finally, there is the human side. Sharon Koberna, quality coordinator at Rio Salado, says the focus so far has been, "one-fourth on process improvement, three-fourths on human issues." The emphasis is on teamwork and cooperation. Vice Chancellor Ron Bleed says TQM's greatest asset is that "it gets to people. It will break down bureaucracy and lead people to focus on the truly important things. Already we are seeing the benefit of working with teams; bringing cross-functional viewpoints together creates synergy."

President Thor's success with TQM at Rio Salado Community College is gaining attention coast to coast; she recently delivered a keynote address at a national conference dedicated to TQM in community colleges. Her remarks dealt with the human element of TQM. President Thor put it this way: "Some say that TQM is 90 percent culture and 10 percent tools. For me, the human aspects of TQM have been the most exciting and rewarding, namely, the fostering of empowerment and teamwork, fostering cooperation over competition, improving communications, reducing fear, increasing trust, and building pride among individual employees and the college as a whole. TQM is about the wonderfully diverse and capable people that make up our colleges."

What Will It Take for Success?

Quantum Quality is a major undertaking, especially as a districtwide initiative in a system as large and complex as Maricopa. Nothing short of total commitment is essential to its success and that commitment begins at the top. Chancellor Elsner is acutely aware of this, as is Grant Christiansen, chair of Maricopa's board. "Success will depend on the involvement of the people," Christiansen states. "To really work, that involvement must be top-to-bottom. We have the kind of personnel who can genuinely involve people. Also, we need to make sure this effort does not become a threat, rather that it becomes an opportunity."

TQM's greatest asset is that it will break down bureaucracy and lead people to focus on the truly important things.

A consensus has developed on what it will take for Quantum Quality to reach its potential:

- Training is key—as many people as possible must be trained in TQM philosophy and tools, and as fast as possible. Employees also need to be introduced to the nature and dynamics of change itself. A common ground must be reached so the vocabulary of TQM facilitates, not hinders, communication.
- Perception is often more powerful than reality. "Walking the talk" cannot be overdone. Administrators in particular must be alert to the danger of doing the same old things in the same old ways.
- Patience is critical. An institution's culture does not change overnight; a long-term commitment is basic. Maricopa looks five to ten years ahead for full institutionalization of Quantum Quality.
- Quantum Quality must become part of the everyday routine. It must be integrated into the way an institution does things, not treated as an "add-on."

Chancellor Elsner describes the challenge ahead: "Quantum Quality embraces the yet-to-be-learned; the interesting risk may be the interesting failures that need to be encouraged. Maricopa has gravitated to the state-of-the-art technology user, the boundary pusher—it rewrites the role of community colleges as it evolves in its relationships with its partner schools, with its commitments to training a national cadre of learners, with its innovative human resources strategies—so TQM has to move Maricopa to its own Quantum stage."

The Future

The year is 1999, Phoenix, Arizona; a visitor enters one of Maricopa's colleges. In a classroom, chairs and desks are scattered in groups; a list of ground rules hangs on the wall. Different things are going on all over the classroom. Energy is very high. In one area students help each other through a series of computerized multimedia lessons; in another area a team of students works on a project that will constitute a part of the final course grade; in yet another part of the room one student stands before a group, seemingly presenting a lesson in anthropology. The teacher confers with other students about their plans and goals for the next class and discusses with them the things they think could be improved about their last class. In a nearby conference room a class group meets about a major issue it has identified as an "opportunity"... charts and graphs line the walls... it is difficult to identify the chair of the group, since several individuals share facilitation of the meeting. Faculty in an office area are completing a survey asking their suggestions for improving a student-orientation process in which they took part; in the hallways, entering freshmen complete a survey soliciting their views of the same program. A member of the support staff greets a work-study student who will relieve her so she can attend a meeting of the budget team she participates in. An occupational program chair is not on campus today; she is interviewing employers for feedback about the graduates they've hired. From that information, a faculty team will make curricular revisions...

Will this be the snapshot of Maricopa in the not-too-distant future? If commitment, planning, training, foresight, vision, and support are what it takes to make it a reality at Maricopa, the answer is a resounding and unequivocal "yes!" And if Maricopa leads the way with TQM, can the rest of the country's community colleges be far behind?
CASE STUDY NUMBER THREE

MADISON

HOW TQM HELPED CHANGE AN ADMISSIONS PROCESS

BY JOANNE NAGY, MAURY COTTER, PEG ERDMAN, BONNIE KOCH, SANDRA RAMER, NAN ROBERTS, & JOHN WILEY

It was a runaway admissions process. Top graduate students were deciding to go elsewhere. Departmental faculty were complaining. It was taking much too long to get admissions decisions to the applicants. Adding seasonal help and increasing overtime didn’t help. In October of 1990, with support from all levels of administration, cooperation from the admissions staff, and implementation of Total Quality Management techniques, the UW-Madison Graduate School took action to restructure the admissions process. This effort was recommended by a Graduate School Quality Improvement Steering Team that previously had been organized to define the essential mission of the Graduate School and to lead a comprehensive planning and quality improvement effort.

We implemented a pilot effort to address the complexities of the admissions process and, in doing so, to reduce the time from application to admissions decision. To initiate this effort the Graduate School appointed a team consisting of its dean, the assistant dean for admissions and academic student services, the director of domestic admissions, the director of the office of fellowships, a Graduate School transcript examiner, an admissions coordinator from the Department of Sociology, and an experienced quality improvement (QI) facilitator from our office of QI.

The team’s mission was to:
• Assess the needs of departments/programs for information to be included on the domestic examiner’s report and recommend changes to meet their needs.
• Recommend a process for getting the examiner’s report delivered as quickly as possible.
• Recommend ongoing practices that incorporate the principles of continuous improvement.

The Graduate School receives more than 15,000 applications annually, three-fourths of which arrive during the peak admission season of December through March. In the old admissions process, departments to which students were applying had to wait for the Graduate School to process complete files before they could recommend an admission decision, nominate a student for a fellowship, or offer an assistantship. Graduate School examiners were instructed not to evaluate on anything other than an official transcript and not to start the evaluation until the file was complete with all transcripts from all academic work since high school. Completed applicant records were filed and evaluated alphabetically, but in chronological order according to the date of completion.

When the department received the examiner’s report, its admissions committee made an admission recommendation, noted its recommendation on the report, and returned it to the Graduate School. The Graduate School, in turn, reviewed the recommendation to ensure that the applicant met the Graduate School’s minimum requirements. If that was the case, the Graduate School then sent out the appropriate decision letter.

Over an 18-month period, beginning in the 1991–92 admissions season, the project team gathered baseline data on how long it took the Graduate School to process examiner’s reports, how long they were in the department awaiting an admissions recommendation, and, ultimately, how long it took to make an admissions decision. Later analysis showed that the Graduate School contributed 26 of the average 99 days required in 1991, and three of the average 59 days in 1992.

As noted earlier, the admissions process up to this point had been extremely complex and was made more so by the extensive scrutiny given to each applicant file by
the Graduate School. At each step of the process one staff member would check another staff member’s data entry work and another staff member would check that. Then the examiner would check to see that the correct information had been entered on the examiner’s report. The checking continued until the Graduate School mailed the official letter of admission.

We decided to look at the data entry process since we could change that process without consulting departments. The team first looked at a sample of 527 applicant files and examiner’s reports. Within that sample, data entry errors totaling 226 were found in 158 of the files (30 percent). At least two-to-five days were being lost to accuracy checks averaging a half-hour per application. An additional two-to-three days were necessary to make the corrections.

The team learned that the errors occurred most frequently when the applications were coded for the names of institutions previously attended by the student when the transcripts were missing (that is, when the name of the institution came from the student’s application form rather than an official transcript). For example, if a student indicated he or she went to school at “San Diego,” the data entry clerk had to determine whether the student went to San Diego State or the University of California at San Diego. Instead of guessing, data entry staff are now encouraged to leave that information blank until more information is received.

Furthermore, in talking with the data entry staff we learned how cumbersome it was to use the vintage 1975 data entry screen. The creation of a new data entry screen, an easily accessible database for institution names, and data entry codes decreased errors and thereby the need for so much scrutiny.

To find out whether a better process existed elsewhere, each team member contacted three or four peer institutions. Questions ranged from “Does your graduate school review transcripts and act as a clearinghouse, or do the departments do this themselves?” to “How long does it take to get an admissions decision to an applicant?” One institution told the dean that its admissions processing was similar to UW-Madison’s but that it had recently implemented changes that enabled cooperating departments to turn around an admission decision within five days.

As a result of this startling information, a goal of five days or less was unofficially (but immediately) established. In TQM terms, this “best prac-
Table 1
Key Causes of Delays in Admissions Decisions and Suggested Recommendations

<table>
<thead>
<tr>
<th>Key Causes*</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions receives too many applications and transcripts.</td>
<td>Redefine “complete” file.</td>
</tr>
<tr>
<td>Admissions examiners are calculating UGPA on all files, including applications for whom the departments reject immediately upon receipt – between 40-50% of the applicant pool.</td>
<td>Redefine “complete” file. Have departments prioritize applications. Encourage immediate refusals. Empower the departments to forego Graduate School evaluations or cumulative UGPAs. Ask applicants to provide a self-reported UGPA on a 4-point scale.</td>
</tr>
<tr>
<td>January 15 deadline creates a “bottleneck.”</td>
<td>Spread out application deadlines and eliminate Graduate School fellowship deadline.</td>
</tr>
<tr>
<td>Data entry screen very unwieldy.</td>
<td>Redesign the data entry screen.</td>
</tr>
<tr>
<td>Coding institutions from transcripts time consuming and probability for error is high.</td>
<td>Develop an easily accessible data base of institution codes.</td>
</tr>
<tr>
<td>Poor application instructions.</td>
<td>Redesign a new application form and simplify instructions. Provide applicants with checklists and return envelopes.</td>
</tr>
</tbody>
</table>

*A cause-and-effect diagram was used as a tool in determining the causes for our delay in making admissions decisions. The list shown here is a result of that exercise and is the team’s agreed-upon listing of what the key causes were underlying the current situation.

Through identification of the long-standing misconception about the cumulative UGPA requirement, the Graduate School realized that layers of rules, procedures, and traditions might be peeled away if the root causes behind the complexity of the process were examined. With the early assumption that the solution was simply to speed up the delivery of the examiner’s report, the team quickly realized that its original mission statement was based on a myth. As shown in Table 1, a detailed analysis of the admissions process led the team to redefine what was meant by a “complete” file. As a result, it became possible to offer departments an opportunity to prioritize their applications needing evaluations, present them with the autonomy to forgo the Graduate School evaluation or the cumulative GPA, abolish the Graduate School imposed deadline of Jan. 15, and spread out the application and fellowship deadlines according to departmental needs. Meanwhile, the Graduate School developed a new data entry screen, a new database for institution codes, and a re-designed admissions application.

The recommended changes were presented to the departments at a series of admissions forums in June of 1991, eight months after the project began. Because the team had unofficially established as a baseline measure of success a five-day period to complete the process, a day-by-day flowchart of the proposed process was used to present what could happen if the suggested recommendations were implemented. The five days included:

On day one
The department and the Graduate School receive application. The Graduate School enters the appropriate data into the central computing system, making it possible for a department to access applicant information immediately.

On day two
The Graduate School receives the recommendation form (formerly the examiner’s report) that was generated from the information entered the previous day. The form is checked for accuracy and immediately forwarded to the department.

ticə”) became our benchmark.

We also surveyed the 126 UW-Madison graduate admitting departments. Based on an 85 percent response, we learned that, overall, departments found the admissions process “acceptable.” But 77 percent of the respondents wanted the ability to offer aid/admission to the best students immediately; 70 percent of the respondents said that the Graduate School should require all transcripts and provide a cumulative UGPA more quickly. In other words, the departments wanted the Graduate School to continue doing everything the same way, but just faster.

In discussing why it took so long to generate examiner’s reports, we asked ourselves why the departments wanted us to calculate overall cumulative GPAs. These GPAs, often averaging work spanning many years and done at many different schools with various grading systems, seemed artificial at best, and probably even meaningless. When we asked the departments why they wanted these numbers, they told us that cumulative GPAs were required by the Graduate School’s own fellowships office in the fellowship nomination process. Since departments didn’t know in advance which students they would nominate, they needed the cumulative GPA numbers for everyone. When we asked the fellowships office why they required this number; they said it was a matter of simple experience. Because the numbers had already been calculated for all applicants as part of the admissions process, why not use what was available instead of asking departments to calculate some new GPA? Even though the admissions and fellowships offices were located fewer than 50 feet apart for more than 20 years, no one had ever “closed the loop” by questioning who really wanted this particular piece of work to be done. The answer was “no one,” so we stopped doing it.

This led to a newly designed application form that requests a self-reported UGPA on a 4-point scale. Departments are encouraged to use the self-reported UGPA in their review of the student’s transcript(s). Students are requested to submit official transcripts from all institutions attended, but the Graduate School completes an official evaluation on at least the equivalent of the last 60 semester hours. For international applicants the evaluation is completed on at least the equivalent of the last two years of undergraduate work.
On day three
The department receives the recommendation form and upon review responds to the following questions:

1) Should this applicant be denied admission? If yes, the recommendation form can be signed and returned to the Graduate School. The department is responsible for sending the letter of rejection. If no or maybe, continue questioning.

2) Should the department evaluate the transcripts and make an admissions recommendation? If yes, the department is responsible for determining whether or not the student meets minimum Graduate School requirements (bachelor’s degree or equivalent from an accredited school, 2.75 UGPA on the equivalent of the last 60 semester hours).

If the applicant meets the department’s and the Graduate School’s minimum admission requirements, the department simply signs the recommendation form and returns it to the Graduate School. If the department’s decision is to recommend admission for a student who has not met the Graduate School minimum requirements, the recommendation is reviewed by a Graduate School dean.

If no, the department must indicate a priority on the recommendation form and return the form to the Graduate School. The priority helps the Graduate School decide when it must complete the evaluation. (Priority One = a probable fellowship nomination. The evaluation is guaranteed to be done within two days if the file is complete enough to evaluate. Priority Two = a probable admit. The evaluation should be done within three days if the file is complete enough to evaluate. Priority Three = a possible admit. The evaluation will be done in chronological order according to when the request was received.)

If the department wants more than the minimum evaluation (e.g., all past work or only undergraduate work), it must be indicated on the recommendation form.

It is possible by day three for the department to send a decision letter to an applicant indicating that the department has recommended the applicant for admission to the Graduate School.

88 percent said that the plan might work.

In September of 1991 the new process was put to the test. Departments that felt unable or were unwilling to make the change were told they could continue the “old” process by returning a “recommendation form” with “Priority Three” checked. Departments were reminded in a newly instituted admissions newsletter that the best way to expedite the process was to alleviate the need for the Graduate School evaluation. To enable departments to evaluate international applicants, the Office of International Admissions developed an International Directory containing detailed information about the top 250 international feeder institutions, which was provided to each departmental admissions committee.

Departments were further reminded that they no longer needed an “official” Graduate School-calculated GPA noted on an “official” examiner’s report, and that they no longer had to wait for the Graduate School to evaluate transcripts of applicants who were, for various reasons, denied admission immediately. Departments would no longer have to obtain a final GPA on all academic work completed since high school before the applicant could be nominated for a fellowship or given an assistantship, and the Graduate School would not hold departments back from expediting an admission recommendation.

In the first year (1991-92), approximately 70 percent of departments used the new process to recommend students for admission without an “official” Graduate School evaluation. In reviewing the time saved, it became apparent that most departments did not change their admissions process significantly enough to lower the time for departmental processing of applications. Delay has been deemed necessary by some departments for various good reasons (e.g., one department told us that among their peer institutions there is an agreed-upon date on which everyone can begin to offer admission).
Consequently, the overall campus response time will always be considerably longer than the three-day capability. What the changes made by the Graduate School mean is that departments now have the capability to have their best students admitted immediately.

Also during this first year the admissions office experienced no backlog in data entry (compared with a six-week backlog a year earlier) and processed more applications with fewer people in less time. A steep reduction in the number of students admitted on probation may indicate that departments were able to recruit a larger fraction of their top choices.

By the end of February, 1992 the admissions office had made 28 percent of the admission decisions for applications they would eventually receive for fall, 1992–93 compared with 12 percent made at the same time the previous year. In mid-August the Graduate School sent an applicant survey to all students admitted to the Graduate School for fall, 1992–93 and for whom we still had an active file. Approximately 4,000 surveys were mailed, 13 percent were returned (applicants were expected to provide their own postage). The survey yielded approval ratings of 63 percent to 82 percent on seven different aspects of the process. Admitted applicants for fall, 1993–94 are being sent a business-reply survey card with their letter of admission.

Comments received from the applicants have been one of the most gratifying measures of how the process is perceived and working. Here are three particularly powerful examples:

"1 greatly appreciate the rapid response to my application. Because Wisconsin was my first choice, the quick turnaround saved time and money that would have been spent applying to alternative schools.

"I applied to several schools, and UW-Madison was the most organized and human—surprising for a school of this size!"

"After applying to many of the nation's best graduate schools, I can easily rate UW-Madison's admissions process and responsiveness to inquiry as the most simple and most attentive to the students' needs!!"

There are 15 permanent staff members in the domestic and international admissions offices. Professional staff include an assistant dean, a director of each office, and three examiners. Historically, we hired 15-to-20 temporary employees to help process applications during the peak admissions season. Seasonal workers were previously hired on an as-needed—as long as needed—basis. To process the fall, 1990–91 applications (prior to implementing the new process), additional workers were employed in the admissions office from November through May. For fall of 1991–92, additional help was needed December through March.

Overtime hours for all staff, including the temporary help, had also been used as needed and as long as needed. In 1991 staff worked overtime from December through April. In 1992 overtime was used only in January. The 1991 (old process) and 1992 data are shown in Table 2.

The data in Table 2 illustrate some of the benefits to our customers. To obtain detailed feedback on areas needing further improvement, we instituted annual admissions forums for departments (the second forum was held in September, 1992) and, as a follow-up to the forum, a series of workshops were offered to help departments on the technical aspects of admissions. A graduate admissions manual was created and distributed at the September forum and a new application package, with improved forms and instructions, was available for the 1992–93 recruiting season. Other standardizing efforts include ongoing sessions with the admissions offices in which staff members are given the opportunity to bring suggested changes to the group and, upon reaching a consensus, implement changes on a trial basis.

The admissions office is now a place where plants sit on windowsills instead of stacks of hundreds of unalphabetized applicant files and transcripts; where cases of calculator tape (ordered in bulk two years ago for GPA calculations) are now used as a footrest under the domestic examiner's desk; where staff meetings are now 45-minute exchanges instead of two-hour complaint sessions; where staff had fun in January of 1993 re-enacting the chaos of two years ago for a "before and after" photo session. Staff morale has never been higher.

It's amazing to go back to that original mission statement and acknowledge that we thought the problem was just speeding up the examiner's report. It was a tough lesson, but we no longer say we are doing something because it has always been done that way. Instead, we ask ourselves what might be the worst consequence of changing a process, or part of a process. Most often, the consequences that we identify are not as great as the risk of doing nothing. By far the most dramatic results were found in learning that conventional wisdom and tradition were not to be trusted and that to simplify the admissions process would not undermine the academic impact of our work. With this as reassurance, the admissions staff continues to question and improve the process.
No other management philosophy in recent memory has captured the fancy of American business like Total Quality Management (TQM). The shining lights of U.S. industry — Motorola, Proctor and Gamble, and Xerox — witness the success that can come with effective TQM practice. The momentum of TQM has been so contagious that it swept through manufacturing, then service and health care, and now comes to government and education. Yet TQM’s standing in business circles has been sullied recently by critical press reports in The Wall Street Journal, Newsweek, and The Economist. Much of the criticism originates from surveys conducted by Arthur D. Little, A. T. Kearney, Ernst and Young, McKinsey and Company, and Rath and Strong that have reached similar conclusions: in more cases than not, TQM has failed to produce its promised results. Before higher education proceeds further with its infatuation with TQM, it will do well to ponder the mistakes and accomplishments of previous practitioners, thereby increasing the odds of benefitting from the intelligence and holism of TQM.

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The surveys do not conclude that the TQM philosophy is worthless or even seriously flawed; they suggest instead that the implementation of TQM has been deficient, even erroneous. Only 36 percent of those responding to an Arthur D. Little survey could report that TQM was having a "significant impact." Similarly, British firm A. T. Kearney found that only 20 percent of those surveyed believed TQM had produced "tangible results." Yet, despite these discouraging figures, TQM remains, according to many experts, a minimum requirement for staying in business.

Total Quality Management has its roots in statistical process control (SPC); it was originally a manufacturing management model. When W. Edwards Deming and Joseph Juran traveled to Japan after World War II to help rebuild that country's infrastructure, what they taught then did not look like what we now call TQM. Like any enduring species, TQM has evolved, matured, and redefined itself. There is no one approach to TQM; the actual practice of "quality" looks very different across manufacturing concerns, and more different still in service industries and health care. When it is applied to educational institutions, and particularly to learning, "TQM" will diverge even further from its original manufacturing form. Slavish devotion to the earlier precepts of Deming or Crosby will, and of itself, not be enough; higher education will need its own frameworks for the management of quality.

This article, then, will highlight, from the findings in TQM-related literature, the ways in which other industries have encountered success or failure in fashioning their versions of TQM. The conclusions that follow reflect points of agreement across survey findings, industry reports, and the stories of practitioners, starting with the common mistakes made in implementing TQM.

What's Gone Wrong

Lack of leadership. Many companies encounter early trouble because, having heard the TQM commotion and excitement, they leap in with little understanding of what total quality entails and of the ways it differs from the traditional management paradigm. The troubles intensify when the leaders of these organizations offer only passive commitment to quality, delegating the fundamental duties to lower levels of management. This often results in further misunderstanding of changes required for TQM, both in the imprudent selection of "off-the-shelf" TQM training and implementation programs and in an over-reliance on outside consultants for direction and facilitation. Without executive leadership setting the strategy and championing the cause, TQM efforts suffer, moving in fits and starts that ultimately can drown out even those units or teams that have produced impressive results.

Middle management muddle. Another reason TQM dies is that managers and supervisors either don't understand or don't welcome the new roles they must play. The old management mindset encouraged, even implicitly rewarded, the advancement and fortification of individual fiefdoms. Although such behavior is antithetical to TQM, without countermeasures it will persist, subverting the change process. Middle managers are often the forgotten link in TQM implementation, left out of the planning phases but then commanded to learn an intimidating array of new behaviors; when they receive little or no training for these new skills and behaviors, or subsequent reward for their practice, matters are made worse.

Misunderstanding of participation. Just as managers have to learn new behaviors and skills, so too do employees. One mistake, however, is to bring employees in too early, providing them with initial training in TQM tools and philosophy but not with an immediate opportunity to use them. Because most employees will not participate until months (or years) later, they'll need to be trained again, wasting the initial investment.

Yet even a prompt delegation of employees and managers to teams does not prevent these teams from bogging down. This happens, observers report, because of weak group facilitation and maintenance skills, poor definition of team objectives, an open-ended time frame for project completion, and an overburdensome workload for participants with other organizational commitments. When teams flounder, motivation wanes, TQM cynics burgeon, and quality efforts quickly lose steam.

Obsession with process. If you focus on the basic processes of the organization, some TQM champions argue, the results will take care of themselves. But the danger of such a focus is that companies take their eye off the results that the process improvements are supposed to yield. Authors Shaffer and Thomson cite, in the Harvard Business Review, a not-so-uncommon case in which one manufacturing company "launched almost 100 quality improvement teams as a way to 'get people involved.' These teams produced scores of recommendations for process changes. The result was stacks of work orders piling up in maintenance, production engineering, and systems departments—more than any of these groups were capable of responding to. . . . Ignoring mounting evidence that the process was actually counterproductive, they determined to get even more teams established."

When expected results are not tied to the processes marked for improvement, the costs run high with very little to show for it.

Failure to include the customer. Finally, many companies have concentrated all their efforts on improving internal processes with little or no regard for the relationships between those processes and the organization's ultimate customers. Untold energy gets spent on religiously improving processes that are obsolete, trivial, or irrelevant to the customer's needs. A reduced cycle time for the issuance of employee parking permits can hardly be claimed a "success" if the absence of visitor parking is all the while turning away customers.

It should not surprise us that TQM has met with limited success elsewhere; it flips many time-worn management concepts upside-down. It ultimately wants to flatten out the organization, advance decision making at the bottom rungs of the organization, and embrace both customers and suppliers as part of the organization. As demanding as each of these steps might be individually, they can be daunting when combined.

Even so, many companies have achieved
SLAVISH
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EARLIER PRECEPTS
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OF QUALITY.

effective when it is a central, planned part of the organization’s forward thrust, a thrust that requires top-level leadership, that’s built around an intense commitment to customers, and that emphasizes big improvements in “core” processes.

For any endeavor, early momentum can mean the difference between a rapid sequence of successes that builds sustained momentum and a mere plodding along, characterized by random improvement and no palpable excitement. In the case of TQM, the reports say, this early momentum has to be triggered by top management and follow directly from their carefully drawn plans. In the companies studied in the GAO report, it was customary for senior managers to organize and lead the implementation of TQM personally.

Implementation only began, however, after quality improvement had been integrated into strategic and operational planning. Organizations start this planning process by conducting a thorough diagnosis of the organization (this can often take several months), with data drawn from customer groups, employees, and middle management to assess current organizational practices. Values, mission, and vision statements are also reworked. Finally, a “strategic quality plan” emerges that sets company-wide performance goals and targets critical processes for first address. Two crucial factors that leaders must confront are the shift to an intensive focus on customer needs and expectations and a candid selection and assessment of critical processes that keep an organization in business.

Very simply, too often, too little attention is paid at the outset to the customer. Most organizations have been designed as much to meet internal bureaucratic needs as to meet those of customers, and most organizations assume they already know what customers need without verifying those assumptions. In these cases, appropriate strategy gets shortchanged, and the resultant bustle of activity generates a flurry of improvements, few of which really matter to the customer. Karl Albrecht, in The Only Thing that Matters, argues that, in contrast, “customer-centered companies . . . see the customer as the starting point, listening post,

The best evidence to date that TQM “works” comes from a May, 1991 U.S. General Accounting Office (GAO) report that examines the impact of TQM on the performance of U.S. companies that were among the highest-scoring applicants in 1988 and 1989 for the Malcolm Baldrige Award. In nearly all cases, these companies “achieved better employee relations, higher productivity, greater customer satisfaction, increased market share, and improved profitability.” How did they do this? According to the GAO study, their approaches were customized and “homegrown” but shared common features, including a focus on customers’ requirements, a strategic effort throughout the organization to promote quality improvement, and the training and involvement of employees, in all cases with senior management leading the way.

Another useful report is the International Quality Study (IQS)—a three-year inquiry conducted jointly by Ernst and Young and the American Quality Foundation—which emphasizes the importance of timing and usage of practices. First, it debunks the myth of a “universally beneficial set of practices for all organizations.” It reports that certain practices potentially beneficial for beginners tend to be of little use to quality veterans later on. Advanced TQM practices like “world-class” benchmarking might actually damage the efforts of a quality novice. Its advice to those new to the quality game: concentrate on the basics, promote teamwork, benchmark immediate competitors only, and become more responsive to the customer.

Looking across the other reports, the recommendations fall in two categories, one having to do with organizational strategy, the other with implementation tips.

Strategy

The Health Care Advisory Board (HCAB), in its 1992 report, TQM: 14 Tactics for Improving the Quality Process, maintains that the “single most important thing a hospital can do to leverage TQM results is to improve project selection . . . and second . . . tightly focus organizational improvement process on just a few key processes.” A. T. Kearney, in TQM: A Business Process Perspective, reports survey evidence showing that “although bottom-up initiatives have been successful in isolated factories and divisions, corporations have been transformed only from the top, by executives who ‘walk the talk.’” And, Arthur D. Little, in an early-1992 survey, found that a focus in training employees, problem solving, and incremental improvement in numerous but scattered areas around the company—in their words, the “essence” of TQM today—in and of itself “won’t result in the significant improvement needed to become . . . a high performance business.”

Each of these examples highlights a glaring oversight in many organizations: the failure up-front to develop a strategic plan for quality tied to the long-term business plan. TQM is most
and ultimate arbiter for everything they do. They start with the customer's needs and expectations—the attributes that are desired. Then they develop and evolve products or services to satisfy them.” A successful TQ strategy, then, targets the teams and projects that will achieve tangible results that customers have already helped to define.

According to an A.T. Kearney report, “newcomers to TQM can benefit by starting with the right business processes; those that are key to competitiveness.” Appropriate selection of the critical processes—those having the highest impact on customers and other organizational stakeholders—requires, as mentioned above, the completion of an accurate, candid, and comprehensive diagnosis of the organization’s current reality. These identified “core” processes (no more than three or four) are the fount from which all other organizational processes cascade; yet, having identified these processes, an organization still must be patient with its restructuring while it attempts to meet its newly defined goals and mission. Thus, the pilot projects that are selected during the planning stages must have “high probability for quick success and meaningful impact,” according to the HCAB. These early successes on substantial issues broadcast the importance and value of TQM.

Integrating TQM into the strategic planning process is crucial, then, to its short- and long-term success. It prepares the organization to get started on the right foot and creates a new framework in which the organization, over time, can transform the way it performs its work.

Implementation

Getting the strategy right is only half the struggle; the best of plans don’t ensure good implementation. Effective implementation has three cornerstones: employee involvement, the improvement of processes linked to results, and an enduring focus on the customer.

Employee involvement. TQM literature nearly unanimously professes the virtue of employee participation. Organizations seize upon this idea—with genuinely good intentions—by trying to include everybody, immediately. Yet, as mentioned above, this seldom works.

AUTHOR

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Indeed, some consultants suggest refraining from announcing TQM to the entire organization at the outset. Longtime quality consultant Brian Joiner stresses, in an August, 1992 issue of Incentive, that employees, even if informed of quality efforts early on, should only become involved incrementally.

The HCAB report is the most specific in its talk about teams, the foundation of employee involvement. Its evaluators often found TQM teams languishing in confusion and inertia; an antidote the board strongly recommends is that organizational leaders assign deadlines, clearly define a project focus for teams, set high goals to spur “breakthrough” results, and help with data collection and analysis—all this until teams become accustomed to more autonomous teamwork. Meanwhile, employee teams are empowered by the new directive to generate ideas, make decisions, and effect organizational improvement.

As an organization proceeds with TQM, new ideas and responsibility-taking come to be generated throughout the organization; successes build confidence for both management and employees that the new approaches will work. In the early and transitional stages of TQM, however, top-down management practices will still be useful and relevant.

Processes and results. Terry Walker reports in National Productivity Review that in TQM programs that are performing poorly, “nearly all the process goals are being met, but the result goals are not.” Whereas it was once near-anathema to suggest any focus on results when implementing TQM, now firms find it best to strike a healthy balance between processes and results. Goal-setting is essential, according to the HCAB, because it forces teams to stretch and innovate toward big results. In the absence of goal-setting, teams have little context in which to judge the degree of improvement needed. Author upon consultant upon report urges to avoid spending precious organizational energy on activities that don’t impact quality, productivity, or customer satisfaction.

Customer focus. If customer focus is important during strategic planning, it is even more so during implementation. For organizations unaccustomed to soliciting customer input and feedback, building this into the everyday business can be much more bewildering than incorporating it into a one-shot strategic planning activity; involving uncertainty about what questions to ask, of whom, and about how to later use that feedback to cause process improvement, simplification, or innovation. In the GAO study, companies reported using focus groups, opinion surveys, and face-to-face meetings to understand customer needs; they created matrix charts to specify the relationships between critical processes and ships between critical processes and customer satisfaction, charts that allowed employees to clarify how their jobs added value to the customer. The IQS considered customer input critical to a quality-novice organization, particularly when done face-to-face. As that company evolves to a higher-performance organization, its customer-input practices become more sophisticated. For example, while the novice might focus on gathering information to improve current products or reduce the impact of current problems, the higher performer gathers customer
A New Aim

James worked on a conveyor belt. He made and inspected widgets. He worked at the end of the line where paper trays were made for copiers. His job was to do final assembly and inspect. Each day, about 450 paper trays came to James. He knew his job well. He carefully inspected and tested each tray to make sure it was made to acceptable specifications. Any tray that didn’t meet standards, he rejected.

Those that were exceptional, he marked “special” and they were used on demonstration models.

He knew his job was important. He knew that customers expected quality and that a copier wouldn’t be a quality copier if the paper tray didn’t work. And the specifications were the way to ensure it worked. He knew that about 16 percent of the trays didn’t meet specifications, and that about 10 percent were special. It was a guide his supervisor used to make sure that James was doing his job well. Not too many, not too few. Each day James did that, confident that he was doing quality work for the customers.

James never actually saw the completed copiers. He never saw how the paper trays worked in the end. He wasn’t sure how they were assembled to the copier. And he never saw a customer use one. He also never saw the steps to make a tray before it got to him. He didn’t know what Hank, Ivan, and Elaine did in steps before him. And he didn’t know what caused the trays to be of different sizes and strengths.

Then one day, a new manager named Hannah came to the company. She said, “What if all paper trays met specifications?” James laughed. New manager. Didn’t understand that if he passed all the trays, some of the copiers wouldn’t work and the customers would be mad and not buy their machines anymore.

“No,” Hannah explained. “We won’t change the specifications. We’ll improve the process, so that all trays meet specifications.”

James couldn’t do anything about that. The trays were nearly done when they came to him. She explained that they would have to study the whole process of making the trays, from design through completion, step by step.

So Hank, Ivan, Elaine, James, and Hannah got together and worked on the whole process. They found out what steps in the process resulted in variation on the measures and strength. They made improvements and reduced the number of rejected trays to .2 percent. Then they went back to work. This time they raised specifications. The new aim was to try to make all trays “special.”


Melany was a college professor. She taught Rural Sociology 417 to third- and fourth-year students. Every year, about 90 students came through on her conveyor belt. Her job was to add knowledge and test the kids to make sure they met minimum standards. Any student below minimum standards did not graduate. Any student who excelled was labeled “exceptional” and given honors and special opportunities.

She knew her job well. She knew that society and those who hired graduates expected them to have a minimum standard of knowledge. And tests and grades were a way to ensure that. She knew that about 16 percent of the students in her university in any year didn’t make it, and about 10 percent were given honors. It was a way she was evaluated on how well she was doing. Not too lenient. Not too tough.

Each year Melany did this, she was confident she was doing her job to provide for an educated society. She never saw what happened to the students after her class, whether or not they graduated, got a job, or how they did in their jobs. She didn’t know whether or how they used their knowledge in their lives, their next courses, and their work.

And she never saw the steps the students went through before they got to her: at home, in elementary and high schools, and in the other courses in the college and her department. She didn’t see what contributed to each student’s different levels of understanding and strengths.

Then one day, a new dean came. He said, “What if all students were successful?” Melany laughed. An insult to education to think that some of these students would be rated “successful.” They didn’t comprehend the material or complete the assignments. They certainly didn’t understand rural sociology.

“No,” he explained. “We won’t change the expectations. We’ll change the process so that all students achieve the expectations.” Melany couldn’t do anything about that. There was too much that happened earlier over which she had no control. There was too much that happened later about which she had no knowledge.

But, suppose, just suppose, that we could get together and develop a process that would result in all students achieving high expectations? Even honors? Imagine university spokespersons bragging about the achievements of seniors and the quality of the graduating class, instead of the SAT scores of the recruited freshmen. And suppose that, every year, students would learn and do more than the class that preceeded them.

A new aim. A look at education as a process. Identifying what contributes to the overall success of each student. Aiming at “success” for each person. No one “fails.” No student is “scraped.”

A new aim. A new education system. If we can do it for widgets, why not for students?

- What is the value of labeling on a curve? What is the harm?
- What happens to our expectations of those labeled “below average”?
- Will raising expectations increase the number of students that are above average?
- What kind of changes are needed to realize a goal of all students succeeding in your class? Your program? Your institution?

Source: Adapted from Maury Cotte and Daniel Seymour, Kinders: And Other Insightful Stories about Quality in Education (Milwaukee, WI: American Society for Quality Control), 1993.
Where Does TQM Lead?

New behavior in an organization only begins to manifest itself once project successes have multiplied and reinforced the usefulness of committing to TQM. Slowly the virtues of teamwork begin to overshadow independent, isolated, individualized work; gradually employees learn more about the organization, its customers, and how their jobs fit into the larger enterprise. Middle managers, if they were included in the TQM effort from the outset, have been trained to lead, share information, coach, and facilitate; senior management grows more confident in allowing decision making to occur at the lower levels of the organization, closer to the product, service, and customer. Throughout the organization, a heightened consciousness about quality, and what prevents quality, pervades; it becomes easier to recognize the enormous, hidden costs of producing substandard products and services, the "costs of non-conformance." More attuned to customer needs, companies dismantle the old structures and build in flexibility and responsiveness. Executives still steer and navigate the organization but receive continuous input and feedback from all parts of the organization.

Companies that have practiced total quality well for a long time, according to the GAO survey, exhibit common features, including "widespread information sharing, fewer formal and informal barriers between departments and among workers, a spirit of innovation, and a high level of employee satisfaction." It cannot be overemphasized, though, that these new behaviors are not something to mandate and implement; they are a natural, albeit difficult, result of a patient, appropriate practice of TQM over time.

Is There a Model Relevant to Higher Education?

The problem for many industries once they grasp the "quality imperative" is how to translate the theory into reality. Translation takes time; it must be done industry by industry, organization by organization. The service industries, let it be noted, generally have met with less success than manufacturing thus far—Federal Express and the Ritz Carlton notwithstanding. Higher education has good reason to be wary.

Our most salient industry model could be health care. Two reports by the Health Care Advisory Board, TQM: The Second Generation and TQM: 14 Tactics for Improving the Quality Process, draw conclusions strikingly similar to those from studies done in other industries. The HCAB reports offer special insight into the role of doctors in TQM organizations (medical centers), a role that is analogous to that of professors in universities.

Hospitals that have been most successful implementing TQM have involved doctors early and extensively. Hospitals that ignored MDs in implementation efforts found themselves incapable of dealing with their critical processes—clinical quality and doctor retention, for example. Without MD participation, TQM gravitated to changes like reducing patient waiting times and billing complaints. No hospital can address its core processes without doctors' involvement, the board concluded. One hospital trained its doctors before its managers; another hand-picked a quality council composed solely of doctors. Doctors were then encouraged not only to conduct some of the training but to lead quality improvement teams, both clinical and non-clinical. Skepticism was overcome and high MD involvement was achieved only after the early projects and teams had been proven successful.

Many universities have begun implementing TQM under administrative leadership, and have shied away from classroom and curriculum issues, which is to say from their core processes. Most often this aversion is attributed to faculty, who are said (like MDs in hospitals) to be suspicious of any new management philosophy. Further, they (like MDs) know their jobs and they are already providing quality. University TQM advocates may need to rethink the place of quality management on campus, lest TQM wind up being about parking stickers and billing complaints.

Conclusion

Given TQM's decade-long run, it is surprising how scant the documented evidence for its best practice remains. In some ways we've just begun to move beyond anecdotes and platitudes to the pleasant (and unpleasant) truths about doing TQM. Higher education, though a late arrival on the quality scene, still must pioneer into very new territory.

This is not to say industry has nothing to teach us. On the contrary, it is helpful to see across the sectors the importance of building quality principles into strategic and business plans; of finding champions at every level of the organization, particularly at the top; of focusing on results and processes; of bringing new teams on line, only as needed; of incorporating customers early on and forever. These general recommendations can serve us well.

While other sectors like health care are just beginning to systematize what works, we in higher education have years to go before we can do the same. Nevertheless, we cannot afford to go slowly; the demands for quality escalate by the month. For our long-term, collective success, and even as we continue to draw lessons from industry, we'll draw most of our wisdom from one another.
In the academy, where doubt is a foundation of discourse, few things arouse more suspicion than the obviously fashionable. And when the fashionable is accompanied by demands to change time-honored practices, and those demands are delivered with a rhetoric of messianic conviction – as is often the case these days with Total Quality Management – instinctive distaste quickly turns to rejection.

Much of the academy’s initial reaction to Total Quality (TQ) has been gut-level and negative; until this stage is passed, what good will come of TQ is hard to determine. Yet, there is undoubtedly something to the movement. Beneath the hype, TQ does seem to contain new insights about how we can and should operate in higher education. Just as importantly, these insights seem tailored to the times. Hard as they may be to digest, TQ’s root concepts intrigue growing numbers of professionals in higher education, if only for their raw transformational power.

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To those of us who, for the past eight years or so, have watched and pushed along the development of assessment with similar hopes of achieving real change, the dynamic is familiar. A novel set of reform-oriented concepts suddenly, against all expectations, takes off as a high visibility topic of discussion; at the same time, it engenders profound intellectual discomfort. Like assessment in its early years, many of the acrimonious debates about the merits of Total Quality occur among people who in fact know very little about it. And like assessment in its early days, the claims of both proponents and critics appear overblown.

Strikingly similar, too, are the attempts to limit domain. The commonly heard canard that Total Quality is “all right when applied to the administrative side of the house but it’s inappropriate for instruction,” for instance, echoes earlier assertions that while assessment techniques might fruitfully be applied to basic skills or professional study, they could hardly be used to examine the ineffable outcomes of traditional academic disciplines.

Equally familiar is the mad scramble to get started. Exponential growth occurred each year in the proportion of institutions reporting assessment activities on ACE's Campus Trends survey (a proportion that topped 90 percent two years ago). The same appears to be happening now for claims of TQM efforts; a recent BusinessWeek survey reported 61 percent of college presidents averring involvement in Total Quality—this compared with at best a dozen or so campus implementation efforts as recently as two years ago.

Both movements rest ultimately upon a similar image of knowledge-driven, continuous improvement. Unlike earlier management adventures such as MBO and Zero-Based Budgeting, which were applied to the academic enterprise, Total Quality—like assessment before it—demands fundamental change in academic structures and in the way the actual work is done.

But the two stories also show revealing differences. For one, the stimulus for involvement is different. Initial institutional reactions to assessment in the mid-'80s were decisively colored by the concept's early (and partly coincidental) linkage with the issue of public accountability. Assessment thus evoked the attention of institutions but, apart from a vague appreciation that something ought to be done to improve undergraduate teaching and learning, assessment itself did not appear to most campus parties as a needed response to a visible problem.

The problems Total Quality presumes to address, in contrast, are palpable and urgent. The soaring attendance at “quality” conferences in higher education last year was motivated less by a general desire to improve than by institutional need to cope with an increasingly desperate set of fiscal circumstances. Parity as a result—and this is a second important difference—institutional involvement with Total Quality has often been stimulated from the top. Assessment in its early years only rarely enjoyed the active sponsorship of presidents and provosts, but those are the very people championing the TQ movement. Similarly, the institutions first identified with assessment were widely recognized as innovative but were otherwise not well known. In contrast, the Total Quality movement counts in its front ranks a large proportion of universities standing high on the reputational pecking order.

The most important difference, though, is that the reach of TQ is from the outset more comprehensive. While only a few engaged in assessment really felt its hidden potential to radically transform teaching and learning, TQ's change agenda is up-front from the beginning. A major stumbling block to the effectiveness of assessment as actually implemented by most institutions, for instance, was the fact that the results of evidence-gathering often went nowhere because a structure of utilization was assumed, not created. But TQ claims to operate on all parts of the system simultaneously; in the compelling monosyllabic syntax of the Shewhart Cycle, “plan, do, check, act”—a scheme that not just welcomes but demands information about performance.

What should we make of these two stories? As historians habitually remind us, significant realignments require both new ideas and altered circumstances. For assessment, the ideas were surely there but too little in the structure of incentives facing institutions induced many of them to take new directions. Is the nascent “quality movement” in higher education fated to follow a similar path?

An adequate answer, I think, depends on our response to a related query. First, are the times really different and if so, does their fact require a new way of managing? Second, is the “it” of Total Quality really any different from the many ideas (including assessment) that have been advanced over the years torough’” higher education—or indeed, from many of the academy’s current practices, whatever they may be called? If the answer to both of these complex questions is “yes,” Total Quality may indeed be the idea we've been waiting for.

Bad Times or Changing Times? Certainly there is little disagreement that colleges and universities face difficult times, perhaps the most difficult in five decades. But though everyone will agree that things are tough, not all concur that they are different. A great many academics believe that higher education’s current fiscal woes, however deep, are temporary, and can be managed by the usual combination of judicious belt-tightening and vigorous budgetary lobbying until the inevitable recovery occurs.

At least on the public side of higher education finance, much of the evidence now suggests otherwise. First, we appear to be up against a fundamental structural condition. In growing numbers of states, 80–85 percent of the budget is now tied up in entitlements, court-ordered spending, and restrictions of one kind or another; in this context, higher education has become the “budget balancer”—the last-in-line piece of discretionary spending remaining after mandatory expenditures are accounted for. A second element of the problem is that taxpayers simply will not support further increases, however worthy the cause—a fact demonstrated convincingly by a series of bleak state electoral results last November. These conditions, together with more general trends in the economy, suggest strongly that higher education will need to do what it does for less for the foreseeable future.

The logical cutback strategy of doing less by limiting access is increasingly un-
**Why, Jimmy, Why?**

Jimmy had never been a great student, but he did try. He usually got Cs, sometimes a B, and occasionally a D. Still, as he looked down at the grades he’d just received for the last semester, he was shocked—one C and the two F’s. “What do I do now?” he asked himself.

He had loans and grants. They wouldn’t pay for F’s and he had no money himself. He would have to take some time off, drop out, and hope that he could come back in a few semesters. He looked again at the grade card. Two F’s?

Why?

He knew why. Because he didn’t have time to study. He was working four nights a week at a local motel and waiting tables on the weekends. Every extra moment he spent studying. He was bleary-eyed most of the time. Exhausted.

Why?

Because his school workload this semester was much tougher than before. The one class was pretty much what he had expected. But the other two had overwhelmed him. They were both courses in his major. Unfortunately, he wasn’t prepared for either of them. From the very beginning the professors were discussing things that had not been covered in the prerequisite courses the semester before. Jimmy found himself doing extra reading, asking other students for help, or just trying to figure stuff out for himself. He just wasn’t prepared.

Why?

Because the professors of those prerequisite courses were recently hired part-timers. They had been given a time slot, a classroom, a textbook—and a hardy “welcome aboard.” That was it. They worked hard to develop a syllabus that covered the textbook and allowed them to discuss issues that they, through their own work experiences, felt were important. Unfortunately none of their quick-study preparation involved meeting with other professors. The part-timers didn’t know what the teachers of the next-in-line courses expected their students to know.

Why?

Because the department didn’t have an orientation session for new hires. The part-timers were never acquainted with the curriculum or program objectives or the mission of the department. They didn’t know where they fit in.

Because policy did not allow part-timers to attend department meetings. That was just for the professors.

Because the part-timers taught mostly night classes and the professors mostly day. There wasn’t even much of a chance that they would bump into each other in the hallway.

Sometimes a single “why” is not enough to really explain things. One “why” suggests that Jimmy failed, two and three “whys” suggest that the teachers failed. Four “whys” make it clear that the system failed them all.

- When we have a problem, what do we often think of first? Solutions? What might be more useful?
- What problems are you facing?
- What do you really know about the situation? Hunches or facts? What are the root causes?
- You may want to ask “why” several times until you get deep into the problem.

appear to do already. If the first reaction moves us to righteousness, the second induces smugness; the rest of the world, after all, is only just now catching up. Smugness or no, there is more than a little truth to this contention. Many of the core ideas of Total Quality do have compelling academic counterparts. But things are also not that simple, as even a brief analysis of some of TQ's ideas will attest. Consider, for instance, how some of these ideas fare when viewed in the context of traditional academic culture.

- Decentralized Management and Empowerment. Perhaps the most visible aspect of Total Quality is its call for a new kind of management. Instead of relying on traditional hierarchical structures that optimize regularity and control, TQ's philosophy emphasizes management's roles in setting broad direction and facilitating processes while decentralizing operational decisions to the level at which the work is done. Ideal managers become "coaches"—able to motivate concerted action by communicating the big picture while at the same time creating an atmosphere of openness that legitimizes new ideas and allows the creativity of all to come forward.

One of the appeals of this "new" philosophy to the academy, quite naturally, is that it appears on the surface to be quite close to what we do already. Participatory management is obligatory in academic settings, and faculty constitute what is arguably the most "empowered" workforce on earth.

But surface parallels can be deceiving. The "empowerment" of Total Quality is not about individuals but about work teams who for the most part are directly engaged in production—the people who cooperatively make a particular product or who own a specific process. Decentralized decision making in this context is not driven by any notions of right or entitlement but by the eminently practical insight that team members are the people who know best what's wrong and who should have the ability to fix it. With this conceptual grounding, TQ's seeming affirmation of traditional notions of individual faculty autonomy begins rapidly to fade.

How well does a focus on "teams" fit our own principal unit of academic organization, the disciplinary department? For some things, quite well. Departments do often function as work teams, and are given broad latitude to do so when it comes to such activities as the "production" of disciplinary majors or graduate degrees. With respect to research, though, despite a vague community of interest, they function more as administrative conveniences or holding companies. And with respect to such cross-cutting functions as undergraduate general education, they function politically, or not at all.

Hence the role of management. Beyond creating broad organizational vision, management explicitly comes into play in TQM organizations when an individual work team either lacks the resources to address on its own a local problem or, more significantly, when its process bumps into the interests and operations of another work team with a different agenda and mode of operation. In the latter case, a "cross-functional team" is created with authority to address the mutual problem.

At first glance again, this looks a lot like the way we handle topics like general education. But is it really? One major difference is that TQ's "cross-functional work teams" never stray far from the operational level; unlike the rotating, generalist committees that nominally preside over collegiate functions, TQ teams are built around collaborative responsibility-taking among the doers of a function.

Another difference with teams is that they typically begin with data. Rather than conceptualizing general education from first principles and negotiating its consequences, as faculty committees are likely to do, they begin with a particular empirical problem and trace its implications upward through the system. Such an approach to general education, again, might start deep inside the curriculum with an analysis of how specific prerequisite skills are built, and how they do or do not transfer effectively into the contexts where they are later required. And it might rest heavily on a prior look at actual course-taking behavior and student performance.

In short, for Total Quality, organization follows processes and exists to serve them. Empowerment, though a basic value, is a means, not an end.

- Focus on Core Processes. As this discussion suggests, the "process" is TQ's basic unit of the analysis. And many have seen in this an apparent reversal of assessment's prior focus on outcomes—a perception reinforced by Total Quality's vocal rejection of an "inspection" route to quality assurance. Yet Total Quality depends critically upon a knowledge of outcomes, whether at the end—the resulting market reaction and customer satisfaction—or on the "shop floor," where results are continuously monitored by workers themselves at every step. Assessment occurs at all levels but is rooted in actual processes, for only there can you realize what's needed for better outcomes.

What exactly is a process? Consistent with TQ's industrial origins, its basic model is a production line consisting, in essence, of an ordered sequence of defined operations resulting in a specified product or service; critical features of a process are that it is replicable and can be documented. If it cannot be described, it by definition cannot be improved; hence a major preoccupation of TQ practitioners lies in identifying core processes and determining exactly how they work.

This notion of process surely fits many administrative operations in colleges and universities. The interesting question is whether the notion can help improve our central business of teaching and learning. Though loosely intended as "learning plans," most curricula are not really specified as such. Few, in fact, meet TQ's critical test of a process: the ability to flow-chart key events by noting the specific points in required course sequences at which particular skills will be acquired and reinforced. But the analogy is intriguing, and a number of campuses have found such attempts at "mapping" worth the effort—especially when they uncover places where presumed connections among courses are not happening as intended. Given typical curricular organizations in which faculty are dispersed across discrete classrooms with little incentive to cooperate, such an exercise at least provides a way to start conversations about improvement.

- Continuous Improvement. Arguably, a belief in "continuous improvement" lies at the core of all scholarship. And indeed, organized research practice in major university settings—especially in
Rhonda loved her work in the grants and contracts office. It was exciting, challenging, and rewarding. As an administrator she worked with professors throughout the university in developing proposals—from a $2 million grant for AIDS research to $5,000 for studying the costs and benefits of debeaking poultry chickens.

But today, Thursday, it was anything but exciting. Instead, it was draining and debilitating. She had been working with Professor Joseph DiBello for the last six months on a major grant proposal for the National Cancer Institute. Professor DiBello, a pathologist, was the principal investigator, but there were five other professors intimately involved in the research study from three other departments. The research methodology was extremely complex and it had taken them two months just to work through the details of the final draft.

The problem was the deadline: it was Friday.

In spite of working almost around the clock for three weeks, it had come down to the last few days. On Tuesday morning Rhonda ran a quick mental inventory of the people who had to approve the proposal. There were the four department chairs and two deans. There were also the vice presidents: her boss (the vice president for research and graduate studies), the vice president for academic affairs, and finally, the vice president for administration.

Nine signatures.

Campus mail was completely out of the question. It would take three weeks. The pony express could do better.

There was a work study student in the office on Tuesday, so Rhonda sent him on a mission: track down the department chairs and get signatures. On Wednesday another work study student had gotten one dean’s signature, the other dean insisted on taking the materials home with him on Wednesday night.

Rhonda made it a point to come in early on Thursday and met the dean before he went into a meeting. That left the vice presidents. She got her boss’s signature before 10 a.m., then swung by the vice president for academic affairs’ office just before lunch.

There was only one stop left—220 Sullivan Hall. The vice president for administration’s office.

and that meant five signatures and probably two weeks’ worth of time. She didn’t have two weeks.

So Esther did the only thing she could do—“walk it around.” She managed to get three signatures quickly. But the last one had been a problem: the person had been in marathon meetings.

Now there was just one more stop—220 Sullivan Hall.

Jody came back from lunch a little after 1 p.m. She turned the corner to walk into her office and bumped into a tired-looking Rhonda, the woman who worked in Grants and Contracts. In addition to Rhonda, there were three other people. She recognized one—Esther from housing—in the hallway. Esther and one of the women were seated in chairs, the others stood.

As Jody pushed open the door labeled “220,” she knew exactly what to expect—people seated in the two chairs inside the office.

It had really become a problem. All these people trying to “beat the system” by walking around papers and try to get them signed. Her boss, Kathy Jurasky, hated a cluttered office area and had mentioned it to her on two or three occasions during the last few weeks.

Jody decided to take action. On a notepad she scribbled a reminder to herself to order two more chairs for the hallway. That should just about do it.

- How and why do systems and processes become more complex over time?
- What are the costs of complexity in terms of efficiency? What about the human costs?
- Do you have processes that can be simplified and streamlined?
- How can you identify them?

“big science”—seems at first glance to embody fully the pattern of ongoing critique and resulting refinement that TQ proponents call for. It often proves useful as a point of departure for faculty conversation to point out explicitly that TQ’s core philosophy (like assessment’s), in essence, is the principles of academic inquiry applied to ourselves and what we do.

But it is hardly research that needs fixing. Our central preoccupation with quality has instead been in undergraduate education, where the established core values appear quite different. Despite the occasional ripples of the “content of the canon” debate, these values remain for most faculty essentially, and often deliberately, conservative. For better or worse, instruction at the undergraduate level is viewed by most as the
transmission of a delimited domain, whether this be conceived straightforwardly as a body of knowledge, or as has become more lately fashionable, as a set of outcomes to be achieved. Ironically, in fact, assessment may have helped to reinforce this conservatism by reifying the notion that teaching and learning should be viewed from the perspective of a fixed set of instructional goals rather than, as was the movement’s original intent, inducing ongoing examination of both goals and practices in the light of obtained results.

Applied to undergraduate education, therefore, TQ’s notion of “continuous improvement” can help open the door not only to an investigation of potential changes in instructional technique in pursuit of fixed outcomes, but also to the question of exactly what those outcomes should be. But while questioning of this kind is surely healthy—and is not entirely unknown to us—TQ provides a very definite picture of what “improvement” ought to look like: “quality is conformance to requirements.” In this context, “conformance” means reduction in variation, while “requirements,” of course, are principally shaped by customers. Both of these concepts have interesting academic implications.

• Reducing Variation. Often overshadowed by the more popular “empowerment” dimensions of Total Quality is its original grounding in the technology of statistical quality control. An important root concept here—and the principal object of this technology—is the distinction between “special” and “common” causes of variation. For proponents of Total Quality, processes are “in control” when outcome variations occur within pre-specified statistical limits, and a primary objective is to bring such systems in control through the gradual elimination of myriad “special causes” that are largely unrelated to one another. Until this occurs, improvement of the underlying process itself is impossible, because we are unable to determine what is wrong.

This is a powerful insight, but in the context of improving teaching and learning, where exactly does it belong? Consider, for instance, the way we typically assign grades. Most current grading practices rest in essence upon the variation within a given non-random body of students around its own mean of performance. Instructors unconsciously reinforce the assignment of such variation to “special causes” outside the process of instruction itself. The ascribed special causes tend to be attributed to the student in the form of presumed variations in ability, motivation, and effort. Examination of the resulting grading pattern may tell us something about individual students—as indeed, it was designed to do—but it is virtually useless for informing the instructional process.

AT FEW POINTS DOES TQ CONVERSATION BECOME SO HEATED AS AROUND THE WORD “CUSTOMER.”

Together with a more general view of the negative consequences of evaluating individual performance, this is a reason why Deming, for one, would have us eliminate grading entirely. It is also a major reason why assessment arose initially—because current academic evaluation practices provided no good way to obtain needed data for the improvement of group performance. Criterion-based assessment schemes like those proposed by assessment are of value precisely because they can be used to identify and address common causes of variation.

But is reduced variation really what we want? In the development of a wide variety of basic, prerequisite, or professional skills, the answer surely is “yes”: we want all students to learn fully what needs to be learned. But in the realm of higher-order thinking and the traditional domains of liberal education—where the development of individual voice and style becomes a paramount value—the answer is far from clear. What is important is to sort out these issues from the beginning, before we automatically attempt to apply TQ technology.

• Serving Customers. At few points in the Total Quality conversation does discussion become so heated as around the word “customer.” Partly, of course, this is because the term itself vividly signals TQ’s commercial origins. More subtly, it is because knowledge “in service” to anyone—whatever their label—directly threatens the academy’s core myth of independent inquiry, conducted on its own terms and for its own sake. Particularly when applied to instruction, the term also suggests a surrender of expertise and authority by those assumed to have both, to parties who by definition are unaware of what they do not know.

As the latter point suggests, it is when the term “customer” gets applied to students that things get sticky. In some cases, certainly, the label applies perfectly. Students are the direct customers of such campus services as parking, food services, registration, or the library. As consumers with particular wants and means, they (and their parents) also make the initial “purchase decision” about which college to attend or whether to attend at all, and they will continue to make such choices as long as they are enrolled. In both these areas, TQ logic seems to fit, and its admonition to know and meet customer needs is good advice. In cases where the student “customer” may be badly informed about what he or she actually needs and how best to get it, such TQ notions as “leading” or “de-lighting” the customer can come into play—the objective being less to react blindly to customer demands than to shape or anticipate them.

But once inside instruction, the “customer” label no longer fits. From the perspective of traditional instruction, the student then becomes the “raw material” of a specified process of production (a point that recalls the earlier “value-added” metaphor of assessment). In such cases as basic skills instruction or technical training where the “raw material” analogy does apply, TQ practices such as mapping the process, determining its connections and how they fail, and bringing it into control make considerable sense. And because a college can apply TQ concepts in the presence of what production engineers term an “intelligent product”—one able to provide us with ongoing data about its own condition while remaining a part of the process—these techniques can in fact work even better for us than in industry.
An obvious application of this logic is classroom research.

In most instructional settings, however, students are more than just raw materials. Cooperative learning settings, active learning strategies, and independent work outside the classroom render them a part of the "workforce" as well, "constructors" of their own knowledge who participate decisively in the "management" of their own learning. Though advised by college personnel, they typically make most of their own curricular choices and remain free to allocate their own time and level of engagement.

So what exactly is a student from the Total Quality perspective? On the one hand, lack of a straightforward answer suggests that TQ concepts don't fit well. More compellingly, it suggests that any "answer" depends upon the particular student role and piece of the process that we are talking about.

If students are not in all cases "customers," then who are our customers? Again, the answers depend upon the level at which the question is posed. At the highest level, for public institutions especially, a viable answer is society itself. More particularly, it is the taxpayers who pay the bills and who increasingly expect a demonstrable return on their investment. Much of the escalating accountability debate in higher education can usefully be seen in this light. Arguably, our accountability agenda might be better served by a proactive perspective on our part that consciously recognizes society's rights as a customer.

Internally, at the operational level, our customers are one another—whether exchange occurs among entire institutions, as in the case of articulation and transfer, among academic units within institutions, as in the case of service course instruction and prerequisite policies, or among individual faculty as teaching colleagues. Indeed, it is often surprising when talking with faculty how quickly brick-wall resistance to the term "customer" evaporates when the term is applied to customers, to potential employers, or to society in general, but to themselves and one another in a network of customer-supplier relationships across a curriculum.

As these brief musings may suggest, a number of core elements in TQ practice indeed have echoes in things we do. But by celebrating these echoes too loudly, or by picking and choosing among them, we run the risk of unknowingly making of Total Quality something that it is not. Evidence of this kind of transmutation is visible in some specific syndromes of early implementation that I've recently observed, and that can put the institutions that exhibit them badly off track.

One is a "Planning as Usual" syndrome that confuses Total Quality with old-fashioned linear goal-setting and strategic planning. Though this approach effectively picks up TQ's emphasis on strong leadership and the creation of organizational vision, it fails to appreciate TQ's essential link with operational processes and the empowerment of work teams that own them. The danger here is familiar: effective things happen in the short term through the constant intervention of committed dynamic leadership, but TQ's critical "infrastructure" of cross-functional teams never gets created at the level where the work gets done. The result is also familiar: institutional "planning" at the top never connects to the dozens of operational decisions made daily across campus.

A second trap is what might be called the "Touchy-Feely Ownership Syndrome." Here TQ's insistence upon decentralization and empowerment is confused with sixties-style participatory management—using such mechanisms as Quality Circles, T-Groups, and the like to directly foster a sense of organizational membership and empowerment. The difficulty here is a failure to recognize that TQ's notion of empowerment is intended less to serve the worker than the process—and its customers. As a result, institutions pursuing this path fail to connect these attempts to create organizational loyalty to the bottom line of actually acting on data or suggestions for change. We've seen this syndrome before in things such as program review: people feel good about the process for a while, but soon cease to invest their time when it fails to deliver.

A third difficulty can be labelled the "MBO Syndrome": an institution adopts Total Quality's statistical tools whole hog, but falls into the trap of using them to create fixed targets of performance. Techniques such as "benchmarking"—intended to guide continuous improvement—are instead rolled out as high-stakes, hard-point objectives against which unit and individual performance will be judged. The result is a predictable return to control-oriented management, countered by statistical gamesmanship on the part of those assigned to attain such targets. Instead, TQ proponents remind us that statistical variation is natural and that individuals cannot be held responsible and sanctioned for things over which they have no control.

A final trap is the "Pleasing the Customer Syndrome," which fabricates a strict constructionist version of TQ's core injunction about customer service and applies it directly to students. The result is a narrowly reactive approach where the recognized bottom line is immediate student satisfaction or, as one horrified faculty member recently put it, "where the inmates are running the asylum." While we surely do need improvements in service to students, this approach neglects the key TQ concept of actively shaping customer reaction by anticipating and exceeding current requirements. It also fails to recognize and develop the multiple roles of students in the learning process as a guide to improvement.

Each of these scenarios suggests the folly of direct translation and fragmentary application. The key to avoiding them, of course, is to recognize that Total Quality is total—its pieces must fit together. Many of the pieces are familiar; the "total" is what's new.

Making such varied pieces in fact fit together as part of a transformed philosophy of practice and a new organizational vision is something that will not come easily to the academy. If we are serious, we can neither adapt TQ practices piecemeal nor import them wholesale from others. As every industry has learned before us, the challenge will be to grow our own version of quality management—a task that involves a far more comprehensive process of conceptual development than has up to now marked our engagement.

But are we serious? Certainly the stimulus for change is present, and Total Quality ideas seem rich in potential insight. But an uncertain track record with innovation in the past makes it far too early for us to declare this one, at last, to be the one.
ACADEMIC QUALITY CONSORTIUM (AQC)

The Academic Quality Consortium is a collaboration of the American Association for Higher Education and the William C. Norris Institute created to provide those committed to implementing Continuous Quality Improvement (CQI) in higher education the opportunity to work collaboratively by exchanging information, building on each other's experiences, expanding on the assessment practices already being utilized, and sharing with the wider higher education community the results of their work. Participating colleges and universities are committed to institution-wide implementation of the principles of continuous improvement to maximize learning accomplishment. Objectives of the Consortium are:

- Provide leadership in the transformation of higher education, with a focus on continuous improvement in its ability to make an essential contribution to society.
- Support the implementation of CQI principles in member institutions.
- Provide for the effective exchange of ideas and findings regarding Continuous Quality Improvement among higher education practitioners.
- Explore the value and means for a Baldrige-like process that would establish new norms for quality recognition in American higher education.

Strategically, the Consortium has started with a small group of institutions that have already gained experience in pursuing CQI to provide a learning laboratory for sharing among the most advanced practitioners. Initial work has focused on establishing an annual national conference held in June on CQI and learning and exploring the application of the Baldrige self-assessment to higher education.

Current member institutions are:

Alverno College
Belmont University
Clemson University
Dallas County Comm. Coll.
Delaware County Comm. Coll.
Florida International University
Fordham Grad. Business School
Fox Valley Technical College
Georgia Institute of Technology
Maricopa Community College
Marietta College
Miami University
Northwest Missouri State Univ.
Oregon State University
Pennsylvania State University
St. John Fisher College
Samford University
University of Michigan
Univ. of Minnesota-Twin Cities
University of Minnesota-Duluth
Univ. of Wisconsin-Madison
Winona State University

It is the commitment of the Consortium to broaden its membership as it gains experience in its own operation and as resources become available to support a larger effort. A primary way that the Consortium shares its experience and knowledge of quality practices is through the Continuous Quality Improvement (CQI) Project.

Monica Manning, Executive Director, AQC

CONTINUOUS QUALITY IMPROVEMENT (CQI) PROJECT

In January 1993, the AQC initiated the Continuous Quality Improvement (CQI) Project. The idea for the project grew out of both excitement and concern: excitement about the potential for CQI to strengthen the effectiveness of higher education's core processes; concern that colleges and universities would make the same mistakes other sectors have in implementation.

The newness of CQI to higher education means that much remains to be learned about the "fit" with the academic environment. We have set up the CQI Project as a networking hub and resources clearinghouse. Through the Project, we would like to advance knowledge about CQI by keeping close tabs on campus activities and creating outlets for the exchange of ideas, practices, and innovations. The following are some of the resources offered by the AAHE CQI Project:

PUBLICATIONS

- **CQI 101: A First Reader for Higher Education.** A collection of 24 articles reprinted from various sources and divided into three sections: Roots, Principles, and Leaders; Applications in Other Sectors; and CQI in the Academy ($18 each for AAHE members, $20 each for nonmembers, plus shipping).

- **25 Snapshots of a Movement: A Directory of Campuses Implementing CQI.** A directory of campuses involved in implementing CQI for at least two years. Addresses the primary reasons for embracing CQI, strategic frameworks used to launch CQI, key obstacles to implementation, key successes, and next steps ($13 each for AAHE members, $15 each for nonmembers, plus shipping).
Roadmap to Resources: Sources and Tools for CQI Implementation. A sourcebook that includes recommended readings, conferences to attend, training programs, lists of campus documents, CQI-oriented software, recommended videos, and much more. (In press.)

INTERNET
- CQI-Listserv. The Project has developed a national moderated Listserv discussion group on CQI in higher education that is open to all. One question is posed to subscribers every 2-3 weeks; synthesized responses are posted the following week. To subscribe, send the following message (in lowercase letters):
  SUBSCRIBE CQI-L FIRSTNAME LASTNAME
to the Internet address LISTSERV@MR.NET.

INFORMATION CLEARINGHOUSE
- The Project database and in-house library includes practitioner names, articles, reports, conferences, consultants, training, etc. Call, write, or email for assistance with your campus efforts.

ANNUAL CONFERENCE

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ABOUT AAHE

The American Association for Higher Education (AAHE) is a national organization of individuals dedicated to improving the quality of higher education. AAHE members share two convictions: that higher education should play a more central role in national life, and that each of our institutions can be more effective. AAHE helps to translate these convictions into action. Through its programmatic activities, its conferences, and its publications, AAHE helps its members acquire the "big picture" and the practical tools they need to increase their effectiveness in their own settings and to improve the enterprise as a whole.

Member support enables AAHE to initiate special programs on a range of issues to create effective change at the campus, state, and national levels. Currently, these AAHE special programs are the Teaching Initiative, the Assessment Forum, the Academic Quality Consortium and the CQI Project, the Forum on Faculty Roles & Rewards, Projects on Technology, and the Education Trust. Members receive discounts on the conferences and publications these programs generate and can access their consulting, networking, and information resources.

Other benefits of AAHE membership include subscriptions to Change magazine and the AAHE Bulletin; discounts on registration at AAHE's four annual conferences; discounts on selected non-AAHE periodicals (The Journal of Higher Education and ASHE-ERIC Higher Education Reports); & more.

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